June, 1948

EDISON ELECTRIC INSTITUTE BULLETIN

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PUBLISHED MONTHLY BY EDISON ELECTRIC INSTITUTE

ELECTRICAL RESEARCH STATISTICS
THE ELECTRIC LIGHT AND POWER INDUSTRY

Current Statistical Data Covering 100 Per Cent of Industry

March, 1947-1948

SOURCE AND DISPOSAL OF ENERGY - MONTH OF MARCH

GENERATION* (Net)	1948	1947	%
By Fuel Burning Plants	16,004,793,000	13,981,249,000	+14.5
By Water Power Plants	7,473,275,000	7,264,665,000	+ 2.9
TOTAL GENERATION	23,478,068,000	21,245,914,000	+10.5
Add — Net Imports Over International Boundaries	87,109,000	113,026,000	-22.9
Less - Company Use	136,517,000	150,190,000	- 9.1
Less - Energy Used by Producer	439,552,000	426,541,000	
NET ENERGY FOR DISTRIBUTION	22,989,108,000	20,782,209,000	+10.6
Losses and Unaccounted for	3,019,708,000	3,010,279,000	+ 0.3
SALES TO ULTIMATE CUSTOMERS	19,969,400,000	17,771,930,000	+12.4

CLASSIFICATION OF SALES

NUMBER OF CUSTOMERS - As of March 31st			
Residential or Domestic	32,010,334	30,092,644	+ 6.4
Rural (Distinct Rural Rates)	1,561,240	1,420,353	+ 9.9
Commercial or Industrial			
Small Light & Power	4,998,205	4,769,290)	+ 4.9
Large Light & Power	193,285	180,264)	
Other Customers	136,516	127,614	+ 7.0
TOTAL ULTIMATE CUSTOMERS	38,899,580	36,590,165	+ 6.3
KILOWATTHOUR SALES - During Month of March			
Residential or Domestic	4,391,409,000	3,726,868,000	+17.8
Rural (Distinct Rural Rates)	458,150,000	319,530,000	+43.4
Commercial or Industrial			
Small Light & Power	3,496,545,000	3,025,638,000	+15.6
Large Light & Power	10,196,787,000	9,284,930,000	+ 9.8
Street and Highway Lighting	213,556,000	200,446,000	+ 6.5
Other Public Authorities	531,313,000	491,052,000	+ 8.2
Railways and Railroads			
Street & Interurban Railways	382,482,000	434,052,000	-11.9
Electrified Steam Railroads	240,311,000	239,350,000	+ 0.4
Interdepartmental	58,847,000	50,064,000	+17.5
TOTAL TO ULTIMATE CUSTOMERS	19,969,400,000	17,771,930,000	+12.4
REVENUES FROM ULTIMATE CUSTOMERS	$ 354,599,500	$ 313,073,500	+13.3

RESIDENTIAL OR DOMESTIC SERVICE

Average Customer Data - For 12 months ended March 31st			
Kilowatthours per Customer	1,479	1,358	+ 8.9
Average Annual Bill	$45.11	$43.05	+ 4.8
Revenue per Kilowatthour	3.05¢	3.17¢	- 3.8

(*) By Courtesy of the Federal Power Commission

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EDISON ELECTRIC INSTITUTE BULLETIN

Volume 16 JUNE, 1948 No. 6

Sixteenth Annual E.E.I. Convention Spurs Industry's Confidence in Future

VARIOUS aspects of utility finance highlighted the unusually vital and informative program of speeches delivered by sixteen leading authorities in economic, regulatory and industry fields at the Institute's 16th Annual Convention held in Atlantic City, June 1st to 3rd. The Convention, which was repeatedly characterized as one of the greatest in the history of the electric industry, was attended by some 2,500 representatives of the electric utility industry.

Noteworthy at the meeting was the confidence and faith expressed in the industry's ability to meet whatever demands the nation may make upon it in peace or in the event of war; and the alertness with which such specific and diverse problems as expansion, capital-raising, sales, rates, public relations and accident prevention were being faced. Many of the addresses appear in this issue of the BULLETIN, and the remainder will follow in the succeeding issue.

Acker Elected President

Ernest R. Acker, president of the Central Hudson Gas and Electric Corporation, Poughkeepsie, New York, was elected president of the Institute at the Convention, succeeding Charles E. Oakes, president of the Pennsylvania Power and Light Company, Allentown, Pa.

Following the presentation of Mr. Acker as the Institute's new President on Thursday morning, Mr. Acker led the Convention in a rising vote of thanks to Mr. Oakes, citing the retiring President's "very outstanding and courageous leadership during the past year."

Elmer L. Lindseth, President of The Cleveland Electric Illuminating Company, Cleveland, Ohio, was elected vice president of the Institute. Also elected at the meeting were fourteen directors, whose terms will expire in 1951.

Before the first of the five general sessions, meetings of the Accounting Division General Committee, the Commercial Division General Committee, and the Engineering Division General Committee were held on Tuesday morning. At noon on Wednesday, the Board of Directors also gathered at a luncheon meeting.

A deserved tribute was paid by Mr. Oakes at the last session on behalf of the delegates and himself to Walter H. Sammis, Ohio Edison Company; H. B. Bryans, Philadelphia Electric Company; and L. V. Sutton, Carolina Power and Light Company, for their excellent and untiring work on the Program Committee, which was headed by Mr. Sammis.

Appreciation and thanks were also expressed for the generous assistance of B. L. England, vice president and general manager, and other members of the Atlantic City Electric Company for their part in making the Convention a success.

Grateful acknowledgement was made to the General Electric Company, the Westinghouse Electric Corporation, and the Nash-Kelvinator Corporation for their contributions to the recreational program.

Recreation was modestly blended with business on the Convention program. The grand finale took place on Thursday evening when the Convention delegates filled the American Room of the Hotel Traymore to enjoy the world premiere of G.E. Lamp works' new audience participation radio show, "What's My Name?", starring Arlene Francis and Ward Wilson. Other entertainment features were the cocktail parties on Tuesday and Wednesday evenings, sponsored by the General Electric Company and the Westinghouse Electric Corporation, respectively; and the buffet supper in honor of President and Mrs. Oakes on Thursday evening.

First General Session

PRESIDENT Oakes began the first business session on Tuesday afternoon, June 1st, by reviewing the progress made by the Institute and the industry during the past year; and laid down a platform of ten major objectives for the industry.

OFFICERS OF E.E.I.
1948—1949

E. R. ACKER, *President*
Central Hudson Gas and Electric Corp.
Poughkeepsie, N. Y.

E. L. LINDSETH, *Vice President*
The Cleveland Electric Illuminating Company
Cleveland, Ohio

H. S. BENNION, *Vice President and Managing Director*
420 Lexington Avenue
New York 17, N. Y.

K. B. CRUMB, *Treasurer*
American Gas and Electric Service Corp.
New York, N. Y.

MAE B. WOODS, *Secretary*
420 Lexington Avenue
New York 17, N. Y.

ERNEST R. ACKER

Newly Elected President of the Edison Electric Institute

"Our industry badly needs a cohesive philosophy and a unified policy program to guide our actions," Mr. Oakes said. He recommended definite stands on government in business, a sound tax program, elimination of tax exemption for proprietary businesses, acceptance by the utilities of full responsibility for power supply in their areas, and more interconnection between utilities.

He also made suggestions on the development of the nation's water resources, a constructive Federal power policy, the marketing of power from Government dams, assumption of power obligations by the industry in areas where Government relinquishes its responsibility, and the extension of regulatory authority to public power.

Mr. Oakes also called for a public information program to present the utilities' case to the public who will not "understand our position unless we tell it to them." Declaring that "we must work with others to sell and re-sell our capitalistic system and prevent the spread of socialism," Mr. Oakes stressed that "we must stand fast to our principles and beliefs as free people."

Discussing the capacity situation, Mr. Oakes pointed out that "the United States has an adequate power supply at present, although reserve margins are narrow." With regard to the rearmament program, and the possibility of war, Mr. Oakes noted that "governmental authorities view the outlook for electric power as generally more favorable than the outlook for other basic elements of wartime supply."

The expansion program will require the sale of $3.9 billion in securities during the next four years, Mr. Oakes said. He warned that the industry will face severe competition for the limited supply of capital to be available. Asserting that senior securities will find a "ready market," he said that "equity securities must be especially attractive."

The Hon. H. Lester Hooker, Commissioner of the Virginia State Corporation Commission then told the convention that "The earnings of the power industry should be kept at a level high enough to attract sufficient capital to the industry to meet its reasonable demands. This is essential for our economic welfare. It is necessary for proper protection of the public interest, and it is not adverse to the interest of the rate payer.

"When utilities are required to serve the public at miserly rates of return on their investments, the public as well as the utility suffers. The public demands and should receive good service. But good service cannot be maintained when rates are unreasonably low. Poor service at any price is high," the Commissioner continued.

"The public is suffering today because there are too many timid souls occupying positions of high responsibility who are constantly listening for the trend of the political winds, rather than devoting their energies and their abilities to the performance of their public obligations. Many of them are more interested in staying on the taxpayers' payroll than they are in the preservation of the solvency of the taxpayer. It is unfortunate that some regulatory commissioners keep their ears attuned to what may appear the most popular decision to make, rather than what is the fair and just conclusion to be reached from the facts on record. The increasing of rates to utilities is not a decision that will bring loud public acclaim, but if it is the correct conclusion to be reached,

ERNEST R. ACKER

ERNEST R. ACKER, President of the Central Hudson Gas and Electric Corporation, Poughkeepsie, New York, was elected President of the Edison Electric Institute by the Institute's Board of Directors on June 2nd at the Sixteenth Annual Convention. Taking up the duties of guiding the Institute for the administrative year just beginning, Mr. Acker succeeds President Charles E. Oakes of the Pennsylvania Power and Light Company who served with great distinction during the past year.

One of the industry's younger top executives, Mr. Acker brings to his new position the dynamic quality which has marked his consistent interest in the progress of the nation's utilities, as well as his activity in civic and community affairs in the area which his company serves.

Born in East Orange, New Jersey, in 1895, Mr. Acker was graduated from Cornell University in 1917 with a degree in mechanical engineering. He applied for a commission in the Engineers' Corps of the U. S. Army and served overseas during World War I. Upon his discharge in 1919 he held the rank of first lieutenant, and was in command of a company in the Chemical Warfare Service.

Mr. Acker's career in the utility industry began in 1919 when he entered the engineering department of the Central Hudson Gas and Electric Company. In 1921, he was made general superintendent of the Kingston Gas and Electric Company, Kingston, New York, an organization controlled by the Central Hudson Gas and Electric Company.

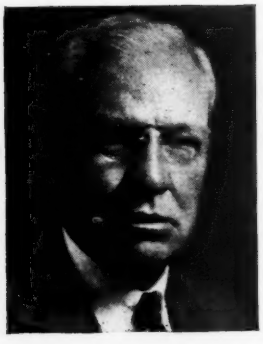
He returned to Poughkeepsie in 1925 as assistant to the commercial manager of the Central Hudson Gas and Electric Company. In that same year he became general commercial manager. Early in 1926 he was elected a director of the Central Hudson Gas and Electric Company, which by consolidation with other companies controlled by the same interests, became the Central Hudson Gas and Electric Corporation in 1927.

Mr. Acker was elected president and general manager of the Central Hudson Gas and Electric Corporation in 1932.

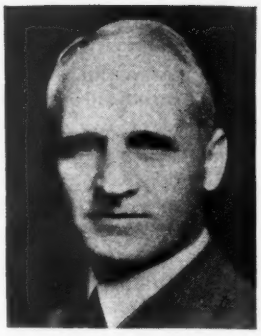
In the business world, Mr. Acker has been prominent for his contributions to the advancement of the utility industry. He was president for two years of the Empire Gas and Electric Association before its disbandment in 1941. He has served the American Gas Association successively as treasurer, vice president, and president; and has acted as chairman of several of the Association's committees, including the Committee on War Activities. In 1943, he received the Monroe Award for the most outstanding contribution to the gas industry.

For the past twelve months, Mr. Acker has been Vice President of the Edison Electric Institute, and is a Director of the Institute, his term extending to 1950.

Institute Directors Elected For the Term Expiring 1951



JACOB T. BARRON
Vice President, Public Service Electric & Gas Co.



J. M. BARRY
Vice President and Gen. Mgr., Alabama Power Co.

GEORGE M. GADSBY
President, Utah Power & Light Co.

D. E. KARN
Vice President and Gen. Mgr., Consumers Power Co.

J. E. LOISEAU
President, Public Service Co. of Colorado

PAUL B. McKEE
President, Pacific Power & Light Co.

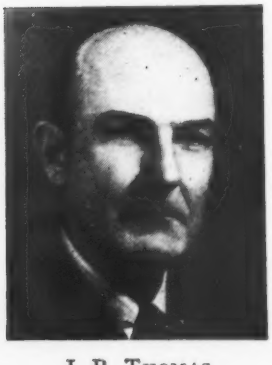
C. B. McMANUS
President, Georgia Power Co.

S. C. McMEEKIN
President, South Carolina Electric & Gas Co.

GROVER C. NEFF
President, Wisconsin Power & Light Co.

P. H. POWERS
Vice President, West Penn Power Co.

HAROLD QUINTON
Executive Vice President, Southern Calif. Edison Co.



J. B. THOMAS
President, Texas Electric Service Co.

JOHN T. WARD
Vice President, Boston Edison Co.

W. F. WYMAN
President, Central Maine Power Co.

it should in all fairness be the decision rendered," Commissioner Hooker said.

A six-point program for the electric utility industry, with a "total scale so tremendous as to dwarf the ponderous bureaucratic programs of our rivals across the seas," was recommended in the session's concluding address by Chester H. Lang, vice president and general manager of sales, Apparatus Department, General Electric Company.

Continued plant expansion; vigorous public relations programs; willingness to fight for sound financial results; acceptance of climbing money rates; organized recruiting of personnel, and accelerated selling programs, were cited by Mr. Lang as "the main planks in your platform for the future, to cope with the difficulties ahead.

The electric utilities' $6 billion expansion program, Mr. Lang said, is a "giant stride." But, he added, there is a growing recognition that even this is not enough; that as the American economy expands, the power industry, in its traditional role of leadership must double and triple its capacity to generate electric power."

Second General Session

Speaking first on Wednesday morning was Cyrus S. Ching, Director, Federal Mediation and Conciliation Service, Washington, D. C. Mr. Ching stressed the responsibilities of both labor and management to their country as well as to the groups they represent.

"Collective bargaining as such—and there is no particular magic to it—can be made one of the constructive forces in our whole national economy, in our whole political setup, in our government itself, if labor and management will make up their minds that they are going to accept the responsibility that goes with it," Mr. Ching declared.

He outlined the history and scope of his organization's activities and summarized its goal by saying, "If we in this service can so operate that we will eliminate the major portion of the labor disputes that come up, then I think we will be rendering a real service."

Alan H. Temple, Vice President of the National City Bank of New York, emphasized that the electric utilities' operating income will have to increase, if the industry is to "attract additional investment on favorable terms, support the increased overhead and capital charges, and maintain a favorable credit position."

"Plant additions financed, not from retained earnings, but from the sale of securities must show a rate of return sufficient to attract further capital, in competition with the requirements of other industries," Mr. Temple said.

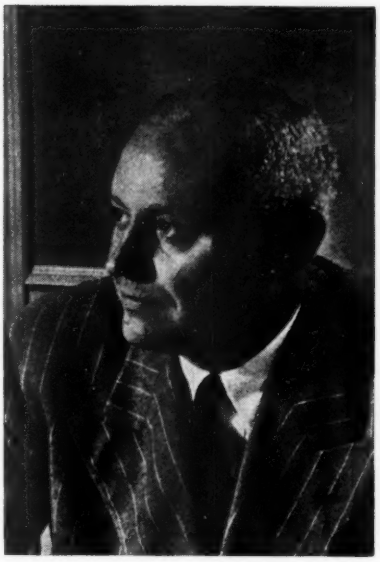
"Conservative investors are attracted by the industry's growth and stability. But they cannot feel entirely free of concern induced by declining margins. Should the industry ever approach a saturation point, a continuation of this long-term trend of margins would prove destructive. To maintain the attractiveness of utility securities for conservative investors, every effort should be made by the industry and by regulatory authorities to check the decline in the profit margin on sales," Mr. Temple concluded.

The possibility of "an orderly market, with a reasonable chance for everybody to finance at reasonable cost as he goes along" was forecast in the closing address of the session by Edward Hopkinson, Jr., partner in Drexel & Company, Philadelphia. He stressed, however, that companies planning to issue securities must be sound financially, and should avoid "flooding the market with securities designed to produce cash beyond current requirements."

"If electric utility companies are going to finance to the best advantage their new capital requirements, they must make every effort to maintain or build up sound capital structures. The cost of money has a direct relationship to this factor. It can also be demonstrated that the harder the going in the money market, the more difficulty will be experienced by the companies with the weaker capital structures," Mr. Hopkinson asserted.

Remarking that over two-thirds of the amount of net security issues during 1947 took the form of bonds, Mr. Hopkinson said that "My greatest concern is in the ability of companies to market common stocks to keep the capitalization ratios in good balance . . . On new offerings of common stock, the yield has had to be, and will probably continue to have to be, exceedingly attractive. It is obvious that it is enlightened self-interest for any utility company to keep its structure, as nearly as possible in sound balance, so that it may realize a favorable investors' appraisal of its securities, whether they be bonds, preferred stock or common stock."

The presently unsatisfactory condition of the common stock market, Mr. Hopkinson said, has led to the use both of debentures and of preferred stock convertible into common stock, as an alternative to direct marketing of common stock. The principal disadvantage is one of mechanics involving the use of bonds in one hundred dollar pieces, and the problem of the small stockholder who usually receives only fractional rights to subscribe, and to whom the subscription itself is probably hardly suited with its low interest rate.



Elmer L. Lindseth

New Vice President of the Edison Electric Institute

Mr. Lindseth was graduated from Miami University in Ohio in 1923 with an A.B. degree, received a B.S. degree in mechanical engineering from the Case School of Applied Science in 1925, and went on to Yale University to receive an M.S. degree. In 1946, the Case School awarded him an honorary degree of Doctor of Science.

Starting as a test helper in 1924 with The Cleveland Electric Illuminating Company, Mr. Lindseth became successively production engineer, executive engineer, assistant to the president, and vice president. He was elected to his present position as president of Cleveland Electric in 1945.

Third General Session

An examination of utility rate structure and its relationship to the nation's economy was offered by Dr. Lionel D. Edie, president of Lionel D. Edie and Company of New York, to start the Wednesday afternoon session.

Stating emphatically that "the downtrend in the unit price of the product of this industry must not only stop; the trend of the price must turn upward," Dr. Edie went on to say that the purchasing price of the dollar has shrunk at least 40 per cent since 1939.

The change in the value of money has effected the living cost of the stockholder as well as everyone else, he asserted. The stockholder will no longer be satisfied with a steady dividend in nominal dollars. He will be seeking dividend stability "in the sense of real purchasing power."

"The time has come," Dr. Edie declared, "when this will prove to be a vital factor in the raising of new capital by the equity route." In conclusion, he said, "We have come to the point in this great postwar period where rate increases are necessary in order to give the equity investor the protection which he needs if he is to put up the new capital and to keep the utility industry in a sound and well-balanced financial position."

More than 30,000 kilowatthours per minute will be added to the annual sales volume of the electric utility industry through the next 10 years, Gwilym A. Price, president of the Westinghouse Electric Corp., predicted.

A total increase in utility sales of 157 billion kwhr is expected during this period, Mr. Price said, which will raise the total annual sales to 374 billion kwhr. His predictions were based upon an extensive survey recently completed by Westinghouse engineers.

"Within the next decade, the power-generating facilities of our country will need to grow to about 95 million kw, representing an increase of about 80 per cent over the present installed capacity," Mr. Price said. "In the next 10 years you may spend for new construction an amount equal to the present value of your utility plant after 60 years of growth."

A 73 per cent increase in average use of electricity by residential customers, bringing domestic use to an average of 2,400 kwhr per home per year; an increase in use of electricity per farm to 4,000 kwhr; a rise in use of power by small business by more than 50 per cent, and even higher increases by large industries, were all forecast by Mr. Price.

"Double taxation, high brackets and the capital gains tax are the chief obstacles in the way of coaxing equity funds or risk capital into the American economy, where it is sadly needed," Lee P. Stack, vice president of the John Hancock Mutual Life Insurance Company, told the convention in the afternoon's final address.

"The scarcities which now plague us are only partly a result of the war, but more directly the result of making it unattractive to our citizens to enter into or continue productive business," he declared. "Why should anyone want to build these plants with our graduated surtax staring him in the face? Should the venture succeed, the surtax would reap the reward, and should it fail, the owner would lose his shirt. Neither is there reason to buy stock in a corporation contemplating the same venture. If successful, 38 per cent will go for federal taxes, and there might also be a state corporation tax; after which, the stockholder would still be subject to high brackets upon his dividends.

"Now our people take no chances because there are no commensurate rewards. Such a system will wreck any nation . . . There is a good appetite now for bonds, but practically none for stocks, for the simple reason that Americans have changed their habits of thrift. Such a freak situation is anything but healthy. Being thwarted in his efforts to build up a competence, the individual is turning to pension funds for his old age and putting tht rest of his savings into avenues largely free from risk," Mr. Stack declared.

Fourth General Session

With the presentation of the Claude L. Matthews Valor Award and the Reddy Kilowatt Award, H. M. Sawyer, Chairman of the E.E.I. Prize Awards Committee, opened the proceedings on Thursday morning. The full Prize Awards Report appears elsewhere in this issue of the BULLETIN.

The Valor Award went to a ten-man line crew, headed by line crew foreman J. A. Pollock, of the Georgia Power and Light Company, St. Petersburg, Florida, for their courageous work in preventing a serious fire from interrupting electric service at West Bainbridge, Georgia.

The Reddy Kilowatt Award for the best 1947 annual report was won for the second consecutive year by the Union Electric Company of Missouri, St. Louis, Missouri, J. W. McAfee, president. Receiving honorable mention for their reports were the Puget Sound Power and Light Company, Seattle, Wash., Frank McLaughlin, president; the San Diego Gas and Electric Company, San Diego, Calif., L. M. Klauber, president; and the Wisconsin Power and Light Company, Madison, Wis., Grover C. Neff, president.

"Working for the communities is good business because we cannot prosper unless our communities and customers prosper first," the convention was told by A. C. Spurr, president of the Monongahela Power Company, of Fairmont, West Virginia.

"Certainly no industry so filters through the entire life of a community as does an electric power company," Mr. Spurr continued. "Nothing new is started without our service, be it a new house, store, factory, or improvements in the standard of living on a farm—all stem from our service, so of course we are vital to the community. And by the same token, if we are to grow and prosper, the community and what makes it tick are equally vital to us."

The Monongahela Power Company, Mr. Spurr said, is "trying everything in the book—agriculture, industry, housing, recreation, conservation, forestry," in its program for territorial and agricultural development of the area it serves. "We have learned that the best way to get the job done is to work through community leadership and the recognized agricultural, civic and governmental development groups . . . Our job is to implement their programs with services we are particularly fitted to render—electric power, widespread area coverage and promotion."

"Everyone in our territorial development department is there because we want to make money," Mr. Spurr emphasized. "Ours is not a philanthropic or altruistic move, nor a public relations stunt, but plain good business. We've been pretty frank, and that

frankness hasn't hurt us. We admit we're in community and territorial development to make money. We can't make money unless the people we are serving make money—so it becomes good business on our part to do whatever we can to help them get it first."

Dr. H. H. Bennett, Chief of the Soil Conservation Service of the U. S. Department of Agriculture, emphasized the importance of soil conservation and flood control to the business community in general, and to the utilities in particular.

An important phase of soil conservation activities, Dr. Bennett said, is the prevention of siltation of hydroelectric reservoirs. "The only practical way to prevent siltation is to carry out a good job of soil conservation work that will keep soil in the fields, and out of stream channels, reservoirs, and ditches . . . Utilities have a direct financial interest in control of erosion on the watersheds supplying the runoff that fills the hundreds of hydroelectric power reservoirs throughout the country."

Pointing out that "over the last 100 years, we have allowed something like half of our farmland to be damaged by erosion," Dr. Bennett went on to say that "recently much helpful interest in soil conservation has been shown by our utilities, railroads, manufacturers, bankers and others . . . It is encouraging evidence of our increasing interest, nationwide, in the welfare of the only resource we possess without which people cannot get along here on earth—our productive land."

Accident prevention in electric utility companies is the responsibility of top management, and "when this question of lives and safety is delegated wholly to the operating forces below the range of top management, the question becomes 'nobody's business,'" A. T. O'Neill, president of the Buffalo Niagara Electric Corporation, Buffalo, N. Y., told the delegates.

"There is no substitute for sustained active participation by the heads of the organization," Mr. O'Neill warned. "If we want a safe organization badly enough, then we ought to be able to keep at it on a day by day basis . . . Every hour that we devote to accident prevention will be returned many fold in a safer, happier and more efficient organization."

Winding up the morning session, Harold S. Sutton, treasurer of the Consolidated Edison Company of New York, Inc., based his address upon an extensive stockholder survey recently completed by the Consolidated Edison Company.

"What are the regulatory authorities doing to help the stockholders to cope with the rising living costs? Dividend increases have been fairly common among the industrials, but very, very scarce among the utilities," Mr. Sutton charged.

He declared that "at least one of the commissions has called attention to the fact that the utilities have a public duty to continue to expand their facilities, even at present high prices, in order to provide adequate service for their customers, and that the consumers must be prepared to pay rates reflecting such high costs. This is progress in the right direction."

Fifth General Session

A call for an "aggressive public information program," to be sponsored by the electric utility industry, which would "go on the offensive and tell what is wrong with government adventures in collectivism," was sounded by J. B. Thomas, President of the Texas Electric Service Company, Fort Worth, Texas, to start the final session on Thursday afternoon.

The Institute "has stood for years, complacently, while advocates of socialism and communism have attacked it, without making any aggressive and effective counterattack," Mr. Thomas charged. "If we are to survive and grow as we should, it is time to wake up the great placid organization we have in E.E.I., and put it to work aggressively, so that the public may know the facts about our business and about those who unfairly seek to tear it down," he declared.

Advising that the industry should set up a committee of leading utility executives to "lay out a well planned, well organized, constructive public information program," Mr. Thomas urged his audience to "really get into the fight between private enterprise and socialism, such as now is exemplified by the contest between this well placed industry that has met the real needs of our country without public subsidy, and the collectivism exemplified by governmentally financed projects, subsidized out of the taxpayers' pockets, tax-free and politically run."

"Continuation of growth can be the largest single factor in contributing to the ability of electric utilities to meet successfully today's changing conditions. Top utility management has a definite obligation to recognize the need for well-directed and intelligently planned selling, consistent with each local condition," George E. Whitwell, vice president of the Philadelphia Electric Company, told the convention.

"Stability and value of employment, security for employees, and satisfactory financial results in all branches of the electric industry depend upon maintaining and increasing the volume of sales of electricity . . . We cannot escape the responsibility we have to the economy of the whole country in doing our utmost to maintain its continued well-being. The successful discharge of these responsibilities will be determined importantly, in my opinion, by adequate development of both the quantity and quality of utility sales effort," Mr. Whitwell concluded.

The electric utilities' long record for downward trend of rates "is no reason why they should now stand back when increases may be needed, while others have maintained their former position in the economic scale by obtaining increases in their wages, prices and rates for service," E. N. Strait, Chairman of the E.E.I. Rate Research Committee, said in the convention's concluding address.

The necessity to obtain large amounts of new generating capacity, at "construction costs far exceeding anything known before;" large increases in wage rates and prices of materials, and the need for adequate revenues to support the utilities' financial program, were cited as reasons for increased attention to rates on the part of utility management.

"Regulatory commissions have two basic obligations to perform. One is to see that rates are fairly and reasonably dealt with in the interests of both customer and company; the other, to insure adequate service, which requires that the utility must be enabled to raise sufficient capital to provide it," Mr. Strait declared. "There are many indications that regulatory commissions understand the present financial need of the utilities, and have a sympathetic attitude toward what is necessary to enable the companies to meet

their capital requirements. The foremost necessity is adequate revenue."

Accounting Division Meeting

Discussion of "Electric Utility Financing," a paper by Harold Scaff, vice president of Ebasco Services, Inc., began the Monday morning meeting of the Accounting Division General Committee.

Mr. Scaff declared that the industry's expansion program, coupled with the effects of rising costs on net earnings have temporarily caused electric utility equities to lose some of their investor appeal, but expressed the opinion that instead of a detrimental effect, the program would actually result in greater revenues at decreasing unit costs. The substitution of modern, efficient plant for obsolescent facilities, together with other improvements and economies, possibilities for which are greater than generally realized, will produce net earnings sufficient to attract the necessary equity capital.

Announcement was made of the formation of a new committee to cope with problems arising from the capital expansion program. Charles Drummond of the Virginia S.C.C., suggested that representatives of regulatory agencies, as well as investment banking houses, institutional investors, and economists be invited to attend meetings of the new group.

Leonard Spacek, partner in Arthur Andersen and Company, Chicago, asked for simplification of terms used in annual reports. He noted that the special accounting terms used in such reports were often not completely understood by accountants, and hardly understood at all by the average investor.

Simplified income statements, condensed financial information, and elimination of footnotes not absolutely necessary were also recommended by Mr. Spacek for consideration when annual reports are prepared.

Dr. B. S. Rodey, assistant secretary and tax manager for the Consolidated Edison Company of New York, reported on the work of an Industrial Relations committee headed by H. K. Breckenridge. Dr. Rodey stated that the committee is preparing a booklet to help the utilities recruit young, technically trained men, and that the industry's accountants have a strong interest in this endeavor.

Commercial Division Meeting

Preparation for sales in the future must be made by selling now, was the dominant theme of the meeting of the Commercial Division General Committee on Monday morning.

J. S. Schuchert of the Duquesne Light Company stressed this underlying idea in his remarks on the Planned Lighting Program. It is probable, he predicted, that the utilities will have capacity to spare before the results of selling Planned Lighting are really apparent.

The salesman's eye to the future was demonstrated further when Harry Restofski, West Penn Power Company, chairman of the Better Light-Better Sight Bureau described the methods by which knowledge of good lighting will be brought to school children. The National Education Association is cooperating in the project, and a teacher's guide, instruction leaflets and quiz sheets on the 5th and 6th grade level are now ready for distribution.

J. R. Hartman, vice president, Cincinnati Gas and Electric Company, emphasized that industrial power sales result from many calls over a considerable period of time. "It is later than you think," he warned as he pointed out that the power sales recess during the war represents a gap that must be filled.

Attention was called to the inroads diesel competition was making in residential and rural service by J. M. Stedman, general sales manager of the Pennsylvania Power and Light Company. Mr. Stedman also described the new E.E.I. activity on all-electric kitchens, which will be ready this fall.

R. F. Hartenstein, Ohio Edison Company, reported that distribution of an installation manual for electric water heaters is now under way; and that a manual is being prepared for ranges. An over-all industry attack on the problem of inadequate wiring is being pushed in cooperation with the National Adequate Wiring Bureau, and, he reported, plans for promotion of circuit breakers are now being made by manufacturers.

A preview of "Lighting the Home the Sunshine Way," a new sound slide film, was given by R. S. Bell of Commonwealth and Southern. The film will aid in training home lighting representatives.

In the final look-ahead of the meeting, a newly organized committee on television was reported on by its chairman, Frank C. Pesveyc of the Public Service Electric and Gas Company of Newark, who listed as its objectives studies of what television does to the residential load; how utilities can get into television programming; and how the utilities can promote television if investigation shows sufficient promise.

Engineering Division Meeting

The major portion of the Monday morning meeting of the Engineering Division General Committee was devoted to an address by H. K. Breckenridge, vice president of the West Penn Power Company, in which he assessed the progress made in improving the attitude of engineering graduates and college faculties toward employment in the electric utility industry.

Although the attitude is more favorable than it was last year, there is still room for improvement. The change for the better which has taken place can partly be attributed to the expansion program which offers promising careers for today's engineering graduates, and also to the feeling that careers in aviation and electronics have been oversold.

Mr. Breckenridge warned that there is a great deal yet to do. In outlining the task, he summarized the findings of a recent report, "Employment of College Graduates by Utilities," prepared jointly by the Industrial Relations Committee and the Engineering General Committee. It calls on the industry to do three things:

1. Study job needs more carefully before attempting any recruiting.
2. Adopt better recruiting practices.
3. Institute training programs for cadet engineers.

Indications show that the industry's recruiting problem is far from solved, since companies are getting only 50 to 75 per cent of this year's requirements, so far, Mr. Breckenridge noted.

Although increasing interest is being shown by greater numbers of students in the utilities, keen competition is faced from other industries, particularly oil and chemicals. Utility salaries, although adjusted and progres-

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The Electric Industry in 1948— The President's Address

By Charles E. Oakes
President, Edison Electric Institute

An Address before the Sixteenth Annual Convention of the Edison Electric Institute, Atlantic City, N. J., June 1, 1948

I AM going to depart from the customary president's report, and devote most of what I have to say to what the future may hold for us, and what we should do to insure meeting our responsibility as an essential part of the national economy. But first I want to discuss briefly what the Institute has been doing and what it is accomplishing, especially in laying the foundation of fact, research and study for the steps we must take.

Institute Activities

The past year has been a busy one for the Institute, its departments and its committees. I commend to your attention the many engineering discussions and papers which have been made available to the industry through the Institute and by its publications. They give to all the benefit of the special knowledge, investigations and advanced thinking of the various utilities—constitute a forum for discussion and the exchange of ideas so necessary if we are to keep abreast of our rapidly advancing art.

Industry problems having to do with accounting, rates, personnel, insurance, material supply, transportation equipment, operating methods, design, power sales and the many other matters which concern us have had careful consideration by the Committees of the Institute. Committee members have been liberal with their time and skill in making the work they have undertaken successful and fruitful, and I know you will all join with me in expressing our gratitude for their efforts.

As you know, the Institute conducts joint research and committee work with other trade associations. Substantial and important progress has been made by these joint undertakings, especially in the heating field, and in standardization.

The Institute is looking ahead towards the day when we must once again sell electric service. It is sponsoring sales training courses, a planned lighting program and a national sales program on electric kitchens. Other steps are in the making.

PRESIDENT OAKES

You will receive reports from time to time as to the findings and recommendations of these various committees. You will hear some of the results of their activities during the talks which will be made before you during the convention. So much is being done by these varied groups of forward-looking and devoted men who are the backbone of the Institute that it is impossible within the scope of a single address such as this, to begin to cover it all. In the narrow sense, the electric companies are the direct beneficiary of their activities, but our customers—the housewife enjoying the efficient service of an electric range, the manufacturer increasing plant production with infra-red or electric furnaces, and the farmer who produces more with the aid of his electrical hired hands—these are the ultimate beneficiaries of the interchanges of information at the committee conference tables and the studies, the reports and handbooks which the committees produce.

The key to the power supply of the nation is the business-managed, tax-paying utilities of the country. Last year they generated 81.4 per cent of the power, and made 86 per cent of the sales to ultimate consumers, exclusive of the energy produced by industrial plants not contributing to the public supply. Their responsibility therefore is great.

Load and Capacity Situation

The load and capacity situation has been, and promises to be, of great concern to all of us. The demand for electric power continues to rise month by month. New and expanded uses of electricity are developing, labor costs of industry and in the home are placing a constantly increasing premium on greater applications of electric power. Last year's production of electrical appliances is illuminating on this point. It was three times the pre-war production in volume. Thus, despite the fact that additions of new generating capacity this year will be much larger by far than in any previous year in the history of our industry, the growth of power demand in 1948 is expected to nearly absorb the new capacity added during the year. It now appears that for the country as a whole the margin of reserve in December, 1948, will be only slightly larger than it was last year. The power supply this year will be tight, but adequate. The consensus seems to be that it will be three more years before normal reserves can be restored.

Obviously, we cannot add generation faster than the manufacturers can make it. In the early part of World War II the War Production Board diverted to military use 2,200,000 kw of steam generating capacity ordered for utility use. We have not yet replaced the shortage of reserve capacity

caused thereby. During the conflict we put in every kilowatt we were allowed to have. We swamped the manufacturers with postwar orders, at a time when they were struggling with reconversion and shortages of material and labor. Although deliveries are very slow, they are steadily increasing in volume. The utility industry expects to install about 4,600,000 kw of new generating capacity this year. Only once, in 1924, when 3,800,000 kw were installed, did the rate approach anywhere near this year's figure. Construction for the first quarter of 1948 was 115,000 kw ahead of the schedule for that quarter.

Steam turbine manufacturers are booked to capacity three years ahead. Their capacity is being increased to 5½ million kw per annum for central stations and another ½ million kw for isolated industrial plants. From V-J Day to the end of 1951, about 23,000,000 kw of generating capacity will have been installed, of which amount 18½ million kw will have been put into service by the utility companies and about 4½ million by various governmental agencies. Even at this tremendous rate of manufacture, however, it will be 1951, barring any interruptions, before the companies' estimates indicate a suitable reserve.

Other equipment and materials continue in short supply, but the situation is improving steadily. The performance of the manufacturers of power supply equipment, in my opinion, is beyond any comparable achievement in peacetime industrial history and they are entitled to our hearty commendation. I take this occasion to pay tribute to this, their latest of many achievements.

The Growing Demand for Electric Power

A few figures will convey a little more clearly the growth picture for electric service. We are continuing to add new customers at a record pace. The 1946 record broke the previously high 1924 record for new customers added. The 1947 addition of customers topped the 1946 record, and the first quarter of 1948 has run ahead of the first quarter of last year. We are, however, approaching saturation so far as existing establishments are concerned. Ninety-three per cent of occupied dwellings are now served, and service is available to 97 per cent. Construction programs under way will carry this latter figure close to 100 per cent in another three to four years so that further increase in customers must depend entirely on population growth and new housing.

For the past several months industrial use of electric power has remained about constant. This indicates that the available supplies of important materials and labor and economic considerations have for the present at least leveled off the general industrial expansion. For the longer range, however, the prospects are for much greater electrification of industry and continued expansion of electricity consumption. Constantly increasing wage levels called for greater and greater use of electric labor-saving devices. New processes requiring electric power are being developed.

In the farm and rural classes of service the rapid expansion increases. The farm customer is expected to double his present use in a very few years. Residential consumption, averaging now about 1,500 kwhr per customer per annum, is also expected to continue rapid growth. Household help is prohibitive in cost. New concepts of comfort and convenience call for more and more electricity.

Electric power and energy is the greatest bargain offered today in these United States. We must keep it so.

Coordinated Operation

It is gratifying to observe the smooth running and well established practice of interchanging power between companies of the same general region wherever significant advantage in the public service can be gained. Many parts of the country are served by so-called power pools, operating on a basis which materially reduces the amount of reserve capacity formerly considered desirable.

In the interest of national defense and of economy, it is important that restrictive laws and regulations which in effect prevent or limit useful power interchanges should be eliminated, so as to permit the utilities to further improve their interconnections both with other utilities and with industrial plants and otherwise prepare to integrate and interchange just as they did during the last war, but on a larger and more effective scale.

The troubled state of world conditions and this country's adopted rearmament program have raised a question in our own ranks and among Washington authorities as to the adequacy of electric power for carrying out the present program and as to its adequacy in case there should arise a state of war.

There will be adequate power to carry out the present rearmament program, although the high civilian consumption of aluminum plus the increased military demand may possibly require some adjustments in that regard. In case of war the nation would again be confronted with a conversion from civilian to wartime production. We would again have around-the-clock operation of factories, which consumes a much greater volume of electricity without materially increasing the demand. The question of shortages would soon boil down to relative considerations—shortage of manpower, shortage of materials, shortage of transportation.

If I am correctly advised, governmental authorities at present view the outlook for electric power generally as more favorable than the outlook for these other basic elements of wartime supply. In other words, electric power generally is not regarded as the critical or limiting factor.

A summary of the capacity situation may be reduced to the following points:

The United States has an adequate power supply at present, although reserve margins are narrow.

There is a remarkably high degree of system coordination to get the most out of all the generating facilities within different areas, and between areas.

Everything is being done that can practically be done to add new capacity.

The turbine factories are loaded to capacity.

Because of this fact, the construction of additional Federal power plants cannot augment the supply of power because then it will be a case of Government *or* private investment rather than Government and private investment.

The power situation is not critical now, and it will improve rapidly as the new equipment on order is delivered.

Financing

Nearly every one of you has done some financing recently. I am sure that all of you are concerned about how to obtain the six billions of dollars that will be needed for the

expansion program that the business-managed utilities have under way, and which is being carried out during an inflationary period.

Six billions of dollars is 40 per cent of the plant account of the industry at the end of 1947. It is $42 for every man, woman and child in the country. Raising such a sum is a great task for an industry that stands on its own feet, without benefit of tax exemption or government subsidy.

The ability of the industry to finance the cash requirements of its construction program over past years is well known. During the period 1937-1946 the greater part of construction was carried on by cash generated from earnings. Financing operations were confined largely to refinancing existing securities to obtain the lower interest rates of the prevailing money market. The industry financially is in the soundest condition of its history. Fixed charges for the use of capital in our industry have, over recent years, been sharply reduced. Capital investment, financed largely from earnings, increased $1.7 billions in the 10 years ended 1947. Long Term Debt was reduced $580 millions. Write-downs of plant account of $2.7 billions were made. Annual rate of accrual for depreciation has risen from 1.7 per cent of plant account to 2.4 per cent, while Depreciation Reserves on our Balance Sheet rose from 11 per cent in 1937 to 22 per cent in 1946. Long Term Debt in relation to utility plant was reduced from 50 per cent to 41 per cent.

Equity Capital

The financing, however, of a six billion dollar program in four years is an undertaking of such magnitude that we must turn to the investing public to supply most of it. Cash generation within the companies from depreciation reserves, retained earnings and other sources will probably exceed $2.1 billions in the four-year period, leaving $3.9 billions to be raised by the sale of securities to the general public. If we apply to our capital needs the theoretical but well-balanced capital structure ratios of 50 per cent bonds, 25 per cent preferred stock and 25 per cent common stock and surplus, the division of this $3.9 billions would be debt and bank loans, $2.2 billions; preferred stock, $1.1 billions; common stock, $600 millions. Surplus and retained earnings of $500 millions would provide the remainder of the equity capital.

Let us now examine these amounts in relation to the requirements of industry as a whole. Economists tell us that to support a $200 billion level of gross national product will require about $22 billions cash for capital expenditures. There are two sources for this capital. One is cash generation within business itself through depreciation reserves and retained earnings, and the second is the sale of new securities and bank loans. At current business levels, the amount of cash generation within business runs from $14 to $15 billions, so that approximately $7 billions must be provided by private investors. Thus, the $1 billion required by the electric utility industry each year is approximately one-seventh of the total new requirements of all industry.

Competition for Money Supply

Obviously we have a serious problem ahead of us. There will be competition for the limited supply of capital to be available. The gas and telephone industry and the manufacturing industries will be calling on the investment market at the same time for large sums of money for their capital improvement programs. So will other business.

Our senior securities, of which approximately 500 million dollars must be placed annually, are especially attractive for insurance companies and will find a ready market. The remainder of something more than $400 millions per year must be equity securities or their equivalent, and these must be of such attraction to investors that they will find a ready market. It is impossible to market utility equities without good earnings, present and prospective. In addition, the securities must be especially attractive if the industry is to win out in competition with other business for the investors' dollars. So far we have done well with this problem. In the first five months of 1948, new capital funds in the amount of $646 millions have been sold by electric utilities, bonds providing $513 millions, preferred stocks $62 millions and common stocks $71 millions. Reported temporary financing through bank loans has exceeded $68 millions.

Our future prospects are good. Electricity is a great bargain, and gets to be a better one relatively every day. The demand for it is growing rapidly. New uses for power are constantly being developed. The high cost of labor in home and factory prompts the use of cheap labor-saving electricity.

Technological improvements and superior management are increasing efficiency and lowering relative costs. Money rates are low. The proportion of our expenses exposed to inflation is relatively low when compared with many other businesses.

So far we have coped with the inflation which has taken place. We are the only business in the country that has not raised prices again and again. I fully appreciate that we cannot continue on this course for long should the inflation spiral continue or prices remain at current levels. But there is no danger that we will price ourselves out of our market, as some industries are doing. I am sure that the cost of electricity to the consumer in relation to his other expenses is going to continue to be lower and lower.

We have much greater stability of earnings than most industries. We have no inventory problem. We sell a service essential in war and peace. Its cost is trivial to the householder, and of minor consequence to most businesses.

Inflationary Trends

Our facilities are long-lived and the greater portion of them were built at pre-inflation prices. Over the past 10 years our plant account per dollar of revenue has shown a reduction from $5.50 to $4. Even with an increase by 40 per cent of our plant account at present inflated prices, at the end of 1951 investment per dollar of revenue should still be under $5 per dollar of revenue.

A runaway inflation would be ruinous to all alike. Like everyone else, I believe that further inflation should be stopped. But if it is not, all business will be in the same boat. The situation of the utilities in relation to other businesses will not change for the worse. On the contrary it should improve.

We are in the main local industries. We can demonstrate our local character with great effectiveness. Every dollar of our plant investment is in the area we serve. All our employees are local citizens who live and work in the area. Every customer must

perforce be a resident of the area. Many thousands of our customers are holders of our preferrred and common stocks. The list is growing daily. When the divestment program of the Holding Company Act is completed a few short years hence, over six-sevenths of all outstanding electric utility operating company common stocks will be in the hands of the investing public and the remainder will be in holding companies set up on a local area basis.

Attracting Investors

Thus is presented to us a challenge and an opportunity. We should encourage widespread ownership in our local areas of our equities. To do so we must pursue a reasonably conservative policy to assure continuity of dividends at an established rate. This will attract the permanent investor. We may well consider sale of our equities to our customers on an installment basis, thereby further increasing local ownership.

For the reasons just given, utility securities will remain attractive to investors, therefore we can more than hold our own in the competition for the funds of the investors.

The end of hostilities did not bring peace to our country. Business recognizes the world-wide political and economic instability. We in the utility industry, as in all business, recognize the necessity for defense preparedness and pledge our facilities and organizations to its accomplishment.

We are called upon to aid Europe while we are hard pushed to take care of the needs of our own people. Taxes remain high. The pressure of inflation rises. The need for huge Federal revenues continues. Federal expenditures continue to absorb one-fourth of our national product and defense expenditures is one-eighth. The paramount problem in this country is the maintenance of a high level of industrial production and business activity to insure the continued working of our economic system, which still has the maladjustments imposed on it during the depression and war years. How are we to insure continued high productivity?

A 25 per cent tax on the national product is not a tax on industry and business alone, it is a tax directly or indirectly on 60 million producers in every walk of life. Ten years hence the number will be 65 million. They will need jobs. New productive facilities must be provided; outmoded processes replaced by new; new plants built to place new products and inventions on the market. This means the investment of risk-money by someone. This industry is concerned in two directions:

a. New production facilities are synonymous with an increasing market for electricity.
b. Our needs yearly for equity capital are an important percentage of the total equity capital needs.

A steady flow of equity capital into industry is the most important insurance of a high level of productivity. This industry should align itself with other industries and other public-spirited citizens to remove the roadblocks to the generation of equity capital. We mention only a few of these roadblocks.

Roadblocks to Investment

1. With Government expenditures equalling one-fourth of the national product and defense expenditures taking one-eighth, it is apparent that Government appropriations in all other directions should be stripped of all but essential spending, thus providing a base for the reduction of taxes. The incidence of taxation should be changed so that there will remain in the hands of the investor-taxpayer at least $7 billions per year which will provide the necessary equity to insure the present high level of production with continued employment at present levels, and the insurance of employment for those who are reaching the age of wage earners.
2. Double taxation of dividends should be ended. This tax discrimination works against equity financing. It tends to encourage corporate borrowing. The policy of the utility industry is generally to put their common stock on a sound, conservative dividend basis. Our equity securities have an appeal to the small investor. The elimination of double taxation on dividend would encourage investment in our equity and would enlarge the base from which equity money could be drawn.
3. The tax structure of the country, as now set up, has dried up the major sources of capital. It has ended the savings of people who ordinarily invest in business. Insurance is the only form of savings most people have today. We most earnestly hope that this situation will be corrected in the near future. On the present basis, taxes may destroy our way of life more completely than would a revolutionary movement to the left.

Capitalism or Statism

In addition to all this we are confronted with a battle for men's minds; a struggle to prevent Communism from overwhelming us from within or impose its will upon us from without. We must win this conflict of ideologies cleanly and decisively; defeat means the end of our liberties; a half-way or compromise victory may result in far-reaching and detrimental changes in our economic system, our way of life, and our standard of living.

This complex and bewildering situation is a challenge to every one of us to do our full duty and more, to think clearly, and to hold steadfast to the principles upon which our nation was founded, and which have guided us to our present position of strength, freedom and material prosperity. The challenge is especially great to the utilities. Adequate electricity is essential in peace; it is of vital necessity in war. The utilities must provide it in abundance. If they do not, the Federal Government must shove them aside and do the job.

Socialization of electricity is the very cornerstone of Communism and its ilk. So the utilities are in the forefront of the battle against Statism. Some companies have already been lost. Others are in the midst of the struggle. Still others while presently somewhat removed from actual contact will, if socialization of our industry continues, be drawn into the maelstrom as it nears your doorstep. In the end, we will win, lose or draw as an industry, not as individual companies.

All of us favor flood prevention and control and reclamation, and that electric generating facilities should be installed at the Government dams where economically feasible. The public wants flood control and reclamation. It must be clear to them that there is no social or economic need

for the Federal Government to enter the power business in competition with taxpaying utilities under cover of supplying water to farmers or abating high water. The existing distributors of electric power in the area should market the power from Government dams.

There are several practical ways in which the distributors could handle the marketing problem. One of them, or a group, could build the power house and install the generating equipment at each Government dam under Federal Power Commission license, pay taxes on these facilities, and also pay the Government for the use of falling water and the dam. The Government in each case would retain full control over the dam, and operate it for its primary purpose of flood control, reclamation or navigation, or a combination of these purposes, as the case may be. This method would afford the greatest relief to the taxpayers, and be of maximum aid to reclamation, flood prevention and control, and navigation.

Government Power Projects

The Government power house and generating facilities could be leased to the local distributors. Or the power could be wholesaled by the Government to distributors under long term contracts without discrimination as to price or conditions.

The regulatory authorities having jurisdiction over the various utilities would, of course, see to it that fees and rates are fair, and that whatever benefits may result are properly distributed and, where applicable, passed on to the consumers.

The vast and widespread program of construction of Government dams that is under way and proposed means that under our present laws, socialization of our industry will spread to many other sections of the country. There is no need of this happening.

We are in the main local utilities, but in the economic structure of our country, we are an industry. On national issues and policies, we will be judged by our accomplishments on a national basis. The failure of one utility to do its part hurts every other utility. A job well done is a boost for all. If we are to meet successfully the challenge of the times, we must think, act and talk as an industry which is part and parcel of American life.

If we are to think as an industry, we should broaden our horizons, and revalue what we do in the light of what it may mean to the industry as a whole. We should outline our objectives and policies in our local areas and on a national basis. We should keep our aims before us, and shape our courses toward them. Our industry badly needs a cohesive philosophy, a creed, and a unified policy program to guide our actions so that everyone will know where we stand.

Suggested Policies

We should take our place beside others who are striving to bring about—

1. A full understanding of the adverse sociological effects of government in business, the withering results of a planned economy and the delineation between individual rights and statism.
2. The establishment of a sound tax program designed to allow and encourage the formation of the new capital needed for our free economy.
3. The elimination of tax exemption for proprietary businesses, both public and private, and the other valuable and unfair special privileges enjoyed by Government in business at the expense of everyone else.
4. The utilities of the United States should continue to accept full responsibility for meeting the present and future electric power requirements generally of the territory they now serve, and of such other areas to which they can extend their power lines from time to time.
5. Each utility should improve its interconnections both with other utilities and with industrial plants, enter into interchange agreements, and otherwise prepare to fully integrate their operations on an area basis, in an even more effective manner than during the past war.

I think we should advocate—

6. The development of the water resources of the nation and the control of floods through projects soundly conceived, well engineered, economically justified and administered so as not to destroy private business, and including, where warranted, the installation of generating facilities to utilize the falling water.
7. The promulgation of a constructive power policy by the Federal Government which would define its functions in relation to the power business, standardize its practices, delimit its activities and stabilize and reassure the industry.
8. Our utilities should absorb and market power from new Government dams by building the generation and transmission facilities, or leasing the facilities, or purchasing the power output under long term contracts.
9. Should the Congress decide to halt the growth of any Federal power undertaking or to divest the Federal Government of this responsibility it may have assumed in any area, the industry should stand ready to assume the electric power obligation to be surrendered.
10. We should advocate the extension of the authority of existing regulatory bodies to Public Power, so as to place these government enterprises as nearly as possible under the same rules as the taxpaying utilities.

Public Information Program

This industry finds itself today in a position which is truly amazing. Each of us in our local areas is confronted with a vast expansion program to take care of the needs and demands of our customers. We find ourselves facing the greatest need for financing in any period of our history. The industry is today a local industry in every sense of the word. Millions of shares of the securities of operating companies are held by thousands of stockholders and the list is growing larger daily. We have thousands of employees who have joined our ranks during the war and postwar years and had no experience in peacetime operation of the business.

There is great need for a public information program at the local level to inform our customers, employees and our investors of the policies of the local company, its plans and prospects for the future, and the interdependence of the local utility and of the area it serves.

At the national level, this industry, in common with other businesses, is facing the problem of a shortage of investment capital due to operation of

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The Importance of Keeping the Power Industry Financially Sound

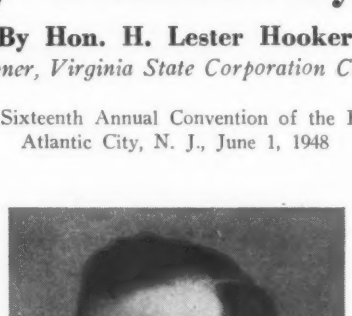
By Hon. H. Lester Hooker
Commissioner, Virginia State Corporation Commission

An Address before the Sixteenth Annual Convention of the Edison Electric Institute, Atlantic City, N. J., June 1, 1948

SO much has been written and spoken concerning the financial problems of the various public utility industries during the past year that is difficult to discuss the subject without appearing to plagiarize to some extent.

You are all so thoroughly familiar with the tremendous expansion program confronting the industry that to burden you with a lot of statistical data or a discourse upon the factors motivating the expansion would be entirely unwarranted. In fact, it is my intention to avoid the use of statistics and figures as much as possible in this discussion.

It has been estimated that in order to overtake and keep pace with the wartime and postwar growth of their business the utilities must spend in excess of $10 billion during the five-year period ending in 1951 and that one-half of this amount will be spent by the power industry. Over one year of this program is now behind us and financing problems have already manifested themselves.



MR. HOOKER

Debt Securities

It has been found that the sale of common stocks under existing market conditions is expensive and that preferred stock issues are almost out of the question. This has given rise to large-scale financing through the issuance of debt securities, with the debenture playing a very important part in the program. Of the new money financing performed by utilities during the first nine months of 1947, debentures constituted 58 per cent of the total issues, mortgage bonds 26 per cent, preferred stocks 6 per cent, and common stocks 10 per cent; an aggregate of 84 per cent in debt securities and 16 per cent in equity securities. Of the common stocks only one-fifth were disposed of through direct sales to the public, four-fifths having been sold through subscription rights.

This growing tendency to finance through the issuance of debt securities, while prompted by current economic conditions, should be given careful consideration from the standpoint of avoiding the difficult problems which may result from the creation of excessive debt ratios.

We find ourselves in the anomalous position of having tremendous growth of an industry present serious financial problems. In the case of a non-regulated industry, greatly increased demands for its product, or service, will result in the necessity of securing additional capital, but it is not compelled to grow any faster than its capital requirements may be economically met.

This should not be construed as intimating that the growth which the utilities are experiencing is detrimental to the utilities; nor should reference to problems entailed by growth, as contrasted with the effect of growth upon non-regulated industries be taken as inferring that regulation is in any way detrimental to public utilities. You all know that regulation of an industry, which is monopolistic in character, is a protection to the industry as well as to the rate payer, when such regulation is wisely administered.

That the time-worn expression "history repeats itself" cannnot be treated lightly, is all too obvious today, especially to those of us who have lived in this world for more than thirty years. We can, however, benefit by past experience in cases where the co-operative efforts of those empowered to act can be obtained. It is with this in mind that we will turn back the pages and review briefly the financial history of the utilities for the past twenty-eight years.

Between the Wars

During the 1920 to 1930 decade, or the postwar period following World War I, the electric power industry experienced enormous growth due to increased demand for its product, which was largely stimulated by extensive sales effort during the general industrial growth which took place throughout the country. You will recall that there was a substantial amount of competition occasioned by the provision of power through central station service as opposed to the provision of such power through generating stations, constructed individually by industrial enterprises. The sales efforts of the power industry resulted in vast increases in central station generating facilities and the integration of such facilities. The fact that the public benefited through substantially lower power costs as a result of these efforts is too well known to warrant any further discussion now. This reference is made to emphasize an essential difference between conditions which existed during the post World War I expansion period and those existing

today, even though there is a similarity in the resulting financial requirements.

The value of the service rendered by the power industry is better recognized today than it was during the 1920 to 1930 decade; the necessity for expansion is to meet demands which *are* demands in the true sense of the word; volume of increase is greater, and the unit costs have been, and are being increased, by unprecedented increases in labor costs as well as cost of material. The fact that electric service now sells itself increases the requests for service made by the public through regulatory authorities, thereby making the meeting of increased requirements more of a mutual problem for the industry and the regulatory agencies.

Although not peculiar to one industry, unfortunately, there were some individuals in the power industry during the 1920's, who, either knowingly, or unwittingly, exercised an unwholesome influence over financing practices. In many instances new money was obtained through the issuance of debt securities to such extent that very high debt ratios resulted. This was manifestly unwise, particularly in view of the high interest rates prevailing at the time.

The Depression Era

Hindsight is easier than foresight and there is no intention to be hypercritical of the judgment exercised at a time when abnormal prosperity was rampant, and there is little evidence of much thought having been given at the time to the possibility of the sudden market collapse which was just around the corner.

We are all familiar with the tremendous growth of the power industry during that period and that, as a whole, it weathered the depression of the 1930's in good fashion.

The fact remains, however, that the companies that were too heavily laden with debt had to undergo financial reorganization and that there were heavy losses incurred by many holders of equity securities.

That is what must be avoided now and you will all agree that capital structures must be built upon bases of sufficient strength and stability to withstand any depression which may follow the period of inflation in which we now find ourselves.

Beginning in the early Thirties the cost of money, particularly borrowed capital, declined steadily, with the result that allowable rates of return were reduced by regulatory authorities. During the past several months, however, interest rates have been stiffening, thereby reducing the differential between the return on equity capital and the return on borrowed capital. This has made utility common stock less attractive to the investor, particularly to those wealthy individuals who prefer the opportunity to invest in enterprises paying higher dividends, even though the security may be somewhat less. This condition has made the sale of common stock expensive and the relatively low dividend rates prevailing in preferred stock issues has all but eliminated that previously popular type of financing, in so far as utility financing is concerned.

Institutional Investors

Under these circumstances the utilities have largely turned to the institutional investor for capital. With the limitations placed upon such investors as to the percentages of their portfolios which may consist of equity securities there has been a great tendency towards financing through debt securities.

During a period beginning in the early Thirties and extending through 1946 there was an enormous amount of debt financing done by the power industry. This, however, represented very little new money going into the industry, inasmuch as its growth during the period was gradual. The financing represented, principally, the refunding of mortgage bonds with new debt securities in order to take advantage of the steady decline in interest rates which occurred during the period. A number of companies refinanced debt securities on an average of once annually for several successive years, in order to reduce debt carrying charges and in some cases to extend maturity dates at low interest rates. Tax windfalls resulting from this refinancing added to the attractiveness of the financing operations. The growth of the industry being gradual during this period, financing of new construction was done largely through the investment of depreciation funds, supplemented by some re-investment of earnings, including those arising from tax windfalls.

There were some large companies which were unable to take advantage of the lower interest rates for a considerable portion of this period because of top-heavy debt ratios. This was true particularly during the period of reduced earnings in the depression. In most of these cases financial reorganizations were necessary before these companies could avail themselves of the opportunity afforded by the low-cost money market. It is this condition to which we must now devote our cooperative efforts to prevent a recurrence in the future.

During the fall and winter of 1945 and 1946 manufacturing industries obtained large amounts of new capital for reconversion and expansion purposes. A substantial portion of this capital was raised through the sale of common stocks largely at from 20 to as high as 40 times current net income. A large amount of capital was invested in these securities by individuals in anticipation of increased earnings during postwar prosperity, as well as quick profits from an expected rise in the stock market. The latter expectation has resulted in some disappointment.

This demand for new money has unquestionably decreased the supply and there is now considerably less money available for investment in equity securities.

Debt Ratios

Thus we find the law of supply and demand, manifested in the increased cost of money, now in evidence. While interest rates have stiffened, the increase has not kept pace with the increased cost of equity capital and we find the most fertile field, from which to obtain capital, among the institutional investors. Here, however, we find limitations arising from the fact that the percentage of equity securities allowed in the portfolios of these investors has been largely taken up.

For some time regulatory authorities have been opposed to permitting debt ratios in the power company capital structure substantially in excess of fifty per cent of total capital. During a period of prosperity, or inflation, debt ratios should be very closely watched, because the eating up of net operating income by interest charges during a subsequent period of depression is what we are trying to prevent.

It is possible, however, that the yardstick should be somewhat flexible, depending upon various factors inher-

ent in the capital structure. For instance, it may be wise to permit a higher ratio of debt in a capital structure consisting solely of debt and common stock, than in a capital structure composed of debt, common stock and a substantial amount of preferred stock.

The effect upon the capital structure of the kind of debt securities included therein should also be considered. If it is composed of serial notes or bonds maturing over a relatively short period the effect upon the debt ratio will be its steady reduction. The extent and rapidity of the reduction should be taken into consideration in the determination of the maximum debt ratio which may be permitted. In this connection the ability of the company to meet such serial maturities without securing new capital, and at a reasonable rate of return should be considered.

The debt absorption of income, or in other words, the ratio of debt fixed charges to net income before such charges is a very important factor to be taken into consideration. A higher debt ratio may be permissible if the debt securities in the capital structure are represented by low yield bonds or notes than if they are represented by debt securities with higher yields.

Debentures

In other words the yardstick should be a guiding factor, but should not be the sole criterion. Each case should be treated upon its own merits with consideration given to the various factors involved.

The increasing popularity of the debenture should be carefully studied. There have been a number of fifteen-year debentures issued during the past year. This means that there will be a large amount of this type of obligation maturing during 1962. Some idea of the extent to which this may be desirable may be obtained through a business cycle analysis.

There is also an increase in the use of the convertible debenture, that is, the debenture which may be converted into common stock. In cases where the percentage of plant financed by mortgage bonds has reached the limit allowed in the mortgage indenture it may be possible to perform additional financing through the issuance of debentures, inasmuch as they represent debt securities which institutional investors may be permitted to purchase. In order to mitigate the creation of a somewhat high debt ratio the use of the convertible debenture is increasing. This has been said to be an economical method of equity financing. The results of such financing, however, will be largely influenced by market trends. Should the market value of the common stock remain substantially lower than the conversion price there will be very little exercise of the conversion privilege. If, on the other hand, the trend of earnings should be upward there will be substantial conversion, with a resulting decrease in the debt ratio.

Earnings and Investment

It is needless to say that, the construction program being forecast over a five-year period, the industry must plan its financing over a period of equal length, with due consideration being given to the fact that it should be in a position to secure additional capital after the end of this period. If immediate financing is performed in such a manner as to expand debt ratios to or beyond reasonable limits, the raising of new capital through the issuance of debt securities will be impossible and the issuance of equity securities by a corporation, overburdened with debt, will be difficult.

It cannot be seriously questioned that the earnings of the power industry should be kept at a level high enough to attract sufficient capital to the industry to meet its reasonable demands. This is essential for our economic welfare. It is necessary for the proper protection of the public interest, and it is not adverse to the interest of the rate payer. It is the duty of the regulatory commissions to exert their best efforts to keep all utilities at all times in a safe and sound financial condition.

The public is suffering today because there are too many timid souls occupying positions of high responsibility who are constantly listening for the trend of the political winds, rather than devoting their energies and their abilities to the performance of their public obligations. Many of them are more interested in staying on the taxpayers' payroll than they are in the preservation of the solvency of the taxpayer. It is unfortunate that some regulatory commissioners keep their ears attuned to what may appear to them to be the most popular decision to make, rather than what is the fair, and just conclusion to be reached from the facts on record. The increasing of rates to utilities is not a decision that will bring loud public acclaim, but if it is the correct conclusion to be reached, it should, in all fairness, and good conscience, be the decision rendered. When utilities are required to serve the public at miserly rates of return on their investments in property dedicated to public use, the public as well as the utility suffers. The public demands, and should receive, good service. It is essential for the public's best interest. But good service cannot be maintained when the rates are unreasonably low.

An insufficient rate of return to a utility necessarily means a lessening of the service being rendered to those it serves. This condition brings about criticism of the utility and the filing of complaints with the commission which requires the time and attention of the utility that could be devoted to its other functions and brings about dissatisfaction with its customers. This creates poor public relations for the utility for which it may not be to blame.

Providing Good Service

A utility should not be expected to maintain a high grade of service unless it is receiving a fair return on its investment. Any other view is shortsighted, and is detrimental to the best interest of the public. The customer should pay for good service and should receive it. Poor service at any price is high. It has not been my experience over a period of years that people in Virginia complain so much about rates as they do about poor service. They are willing to pay reasonable rates if the service is good. They are willing to "live and let live," so to speak.

In Virginia information concerning all of our official acts is available to the public. The public can ascertain from our official records the data upon which we have reached our conclusions. We put the cards on the table face up. We keep nothing hidden from the public. It has been my experience over the years that the people are fundamentally honest and desire to give fair treatment and expect to receive it. It is up to the various commissions and utilities to see that they do get the facts and have them explained. When this is done there is going to be a min-

(*Continued on page* 220)

A Look At Your Earnings

By Alan H. Temple
Vice President, National City Bank of New York

An Address before the Sixteenth Annual Convention of the Edison Electric Institute, Atlantic City, N. J., June 2, 1948

STABILITY of return, and a growth trend with which nothing seems to interfere, have made the fixed obligations of the operating utility companies during the past 20 years the number one choice of conservative investors in American business. They have made the preferred stocks almost the number one choice in that field, second only to issues of a few prime industrial companies which have no debt ahead of their preferred. An example of the attraction which utility securities hold for conservative investors is seen in the make-up of the investment portfolios of life insurance companies. In 1926 these investments totalled $13 billion; 20 per cent was in railroad securities and only 7 per cent —or $900 million—in utilities. Today the total is $51 billion. Only 6 per cent is in railroads; nearly 15 per cent —or $7½ billion—is in utilities.

MR. TEMPLE

Rating Utility Securities

Our purpose this morning is to gain what insight we can into the behavior of utility earnings by comparing them with those of other major divisions of business in the different phases of the business cycle. Such comparisons bring out the long-term growth, relative fluctuations of operating revenues and net income, and other pertinent factors in the investment rating of utility securities. We shall see much which accounts for and justifies the favor which utility securities enjoy, and in which utility management may feel deserved satisfaction. I hope we see nothing which leads to complacence, for the industry must continue to hold the favor of conservative investors if it is to finance the capital expenditures needed to meet the constantly growing demands of the American people. The price of maintaining the number one position is eternal vigilance.

The electric utility industry has developed through the Edison Electric Institute an excellent set of statistics, most of which go back to the year 1926. They provide a broad background for studying the changes that occurred during the prosperous period of the late 1920's, the great depression of the 1930's, the four years of World War II, and the postwar boom that still continues. A number of these basic series will be compared, with figures for other major industries or for business as a whole. For these figures we draw upon the Treasury Department's annual "Statistics of Income," compiled from the tax returns of all corporations in the United States, and upon earnings figures which the National City Bank of New York has compiled for some twenty-five years from the published reports of leading corporations.

Gross Sales

Fig. 1 compares since 1926 the gross revenues of privately-owned electric

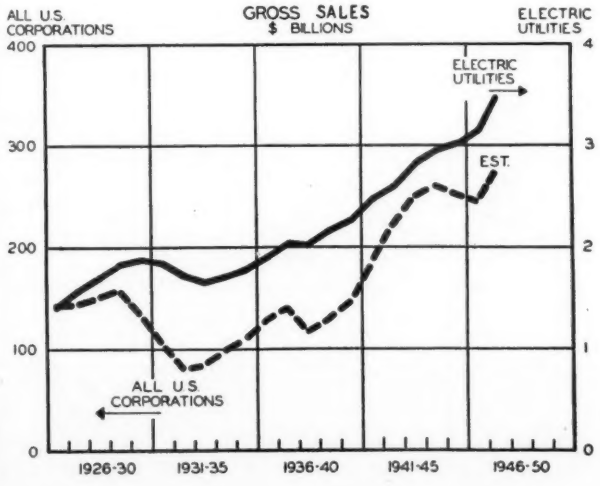


Fig. 1

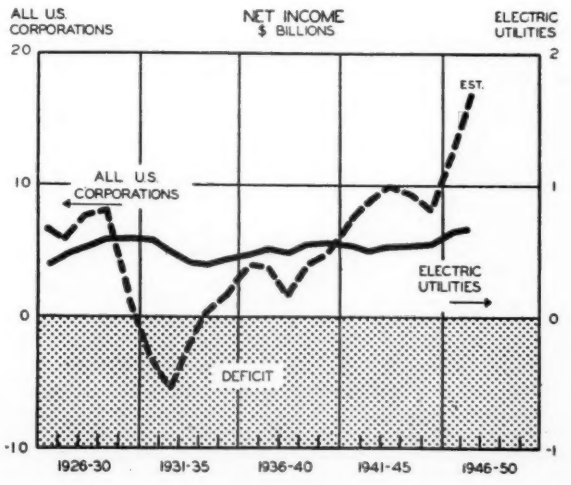


Fig. 2

utilities, as compiled by the Institute, and of all U. S. Corporations in all lines of business, numbering over 400,000 and compiled by the Treasury Bureau of Internal Revenue. The scale for all U. S. Corporations is marked on the left side, while the scale for electric utilities is on the right.

This chart brings out two points. First, is the more rapid rate of long-term growth of the electric utilities. Their gross revenues increased from around $1.4 billion in 1926 to $3.5 billion in 1947, a gain of 150 per cent over the 21 year period. The rate of growth was 4.5 per cent a year, compounded. During the same period, total sales and other receipts of all U. S. Corporations increased from about $143 billion in 1926 to an estimated $275 billion in 1947, an increase of 92 per cent. The annual rate of growth was 3.2 per cent, compounded.

The second point revealed by the chart is the greater stability of revenues of the electric utility industry relative to those of business in general. This was true not only during the great depression of the early 1930's, but also in the minor recession of 1938 and the temporary reconversion slump after the end of the war. The decline in the utility gross during the great depression was 13 per cent; in all business it was 49 per cent.

Net Income

Fig. 2 compares the net income after taxes of electric utilities (for which the scale is on the right), with that of all U. S. Corporations (having the scale on the left).

This shows, in even more striking fashion than the first chart on gross revenues, the relative stability of utility net earnings relative to all corporations. The latter plunged into a deficit in each of the three years 1931, 1932, and 1933. The latest Treasury figures available are for the year 1945, but estimates made by the Department of Commerce, shown by the dotted line, indicate a soaring to establish new peaks in both 1946 and 1947. When considering the total of earnings of all corporations it is important to keep in mind that this total is a combination of the varying figures of all the innumerable kinds of business, and that it also combines the deficits of the corporations losing money with the net incomes of those making money.

This chart shows another comparison which is not so favorable to the electric utilities, and that is the relatively low rate of long-term growth in net income over the period, which will be referred to later.

Rate of Return on Net Worth

Fig. 3 carries us from dollar figures of net income to percentage figures of the rate of return on net worth, the stockholders' equity after deduction of debts. Use of this measure enables us to make comparisons among various industries, showing the wide variations in the record. Most of these figures come from compilations made by our own Bank. This chart summarizes from 1926 through 1947 the relative rate of return on net worth of leading corporations in electric utilities, trade, and transportation.

What this chart and the next two show particularly is the relative stability of the stockholder's return in electric utilities, as compared with other divisions of business. In Fig. 3 it will be seen that trade corporations generally have earned more on the stockholder's dollar—11.4 per cent on the average over the 22 years, against 7.3 for the utilities—but that the utilities have held their earnings rate much more consistently. The range between their best year and their poorest was roughly from 9 per cent down to 5 per cent and back again. The transportation line consists principally of the Class I railroads, but includes also air transport, shipping, traction and bus. The 22-year average return of this industry has been only 3 per cent. In four years in the '30's it had a deficit and in three others it was almost on the line. In the first two war years it earned more than the utilities but today it is earning less than any other major industrial group.

Returns in Manufacturing

In Fig. 4 we compare the return on net worth of the utilities with the similar figure for all manufacturing industries and for the steel industry specifically. Against the utilities' long-term average return of 7.3 per cent, the manufacturing industries have av-

RETURN ON NET WORTH

(Due to the large proportion of capital investment in the form of funded debt, rate of return on total property investment in electric utilities would be lower than that on net worth only.)

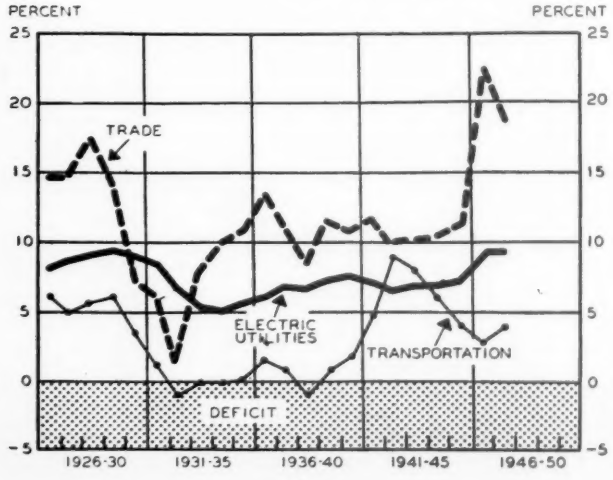


Fig. 3

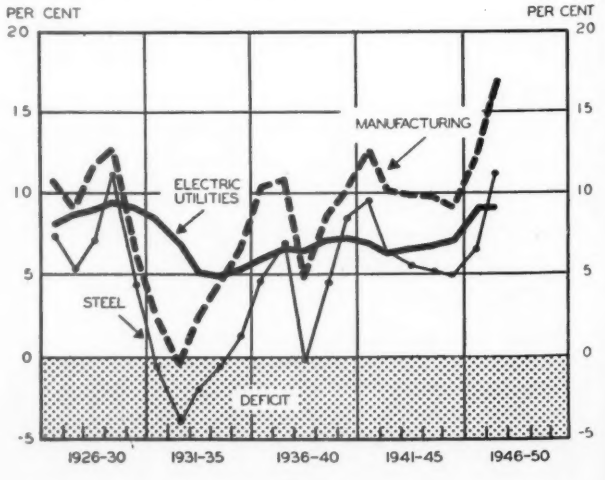


Fig. 4

eraged 8.7 per cent. But in five years of the period the manufacturing return was lower than the lowest point reached in any year by the utilities and in one year, 1932, the manufacturing industries operated at a deficit. The steel industry ranks among the first industries of this country, but it averaged only 4.7 per cent over the 22 years. It operated at a deficit in 5 years, and in only 5 years out of the period did it earn a rate of return above that of the utilities.

Fig. 5 completes the comparisons of return on net worth and it brings into the picture the petroleum and cotton goods industries. The fluctuations in the earnings of these industries are truly feverish. Steel is frequently referred to as "prince or pauper," but the ups and down in cotton goods are even more extreme, for this industry has operated at deficits even in some years when steel and railroads made money. From 1926 through 1940 its return was lower than that of the utilities in every year. Since then it has been higher every year. But its average over the years is only 4.1 per cent, and only since 1940 has it earned a better return than the utilities.

Petroleum Industry

The petroleum industry shows a deficit for only one year, and of course it has made remarkable earnings during the past year or two. But its average rate of return over the 22 years has not been quite as good as the utility average—6.9 per cent against 7.3—and its fluctuations as you see have been substantially greater.

These three Figs., 3, 4, and 5, in summary, show that the utilities have earned on the average somewhat less on their net worth than manufacturing and trade corporations. They have earned substantially more than transportation corporations, and more than certain major industries included in manufacturing. They also show a greater stability than any of the groups listed.

Short Term Profits

Shifting our viewpoint from the longer to the shorter term, however, these charts show that the big increases in return during these boom years have been made by the manufacturing and trade corporations and not by the utilities. The showing in manufacturing and trade may be described roughly as the result of selling more goods at advancing prices, and reaping inventory profits. The utilities, selling electricity at declining prices, do not enjoy this source of profit. The point to be noted at this time is that the utilities are competing in the capital markets with industries which temporarily at least are making a more brilliant earnings record.

Before leaving these charts we should remind ourselves of the limitations of return on net worth as a measure of earning power. In comparing utilities and manufacturing, for example, we must note that the former have a larger proportion of capital in the form of funded debt. The rate of return on total property investment is therefore a more significant figure in the case of utilities, and of course it is lower than that shown on net worth only. We have never compiled such figures for groups of manufacturing companies.

In all cases it must be borne in mind that net worth is based on balance sheet book values of assets. These values currently represent a gross understatement of the worth based on reproduction costs. The calculation of the return on book values therefore ignores the rise in the "corporate cost of living," or the shrinkage in purchasing power of the capital dollar, which is as much of a problem as the shrinkage in purchasing power of the consumers' dollar.

Profit Margin per Sales Dollar

The previous charts showed that the electric utilities' net income had not increased proportionately with its gross revenues. This reflects the narrowing of profit margin per sales dollar, as shown in Fig. 6, which gives also the average margin for the railroads and for all manufacturing corporations in the U. S. The latter is based upon the Treasury figures, including some 80,000 manufacturing

RETURN ON NET WORTH

(Due to the large proportion of capital investment in the form of funded debt, rate of return on total property investment in electric utilities would be lower than that on net worth only.)

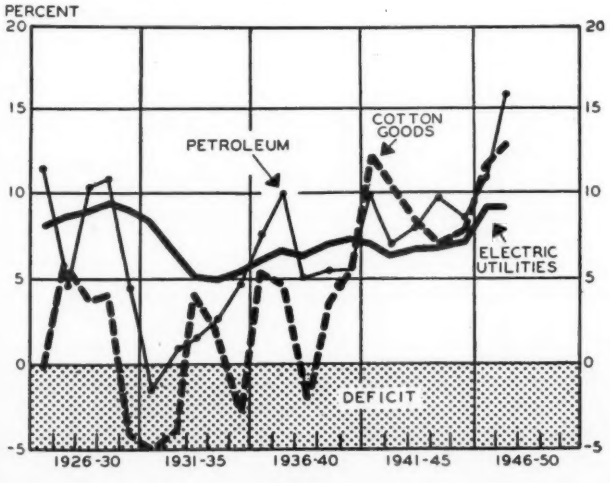


Fig. 5

COMPARISON OF NET INCOMES PER DOLLAR OF GROSS REVENUE

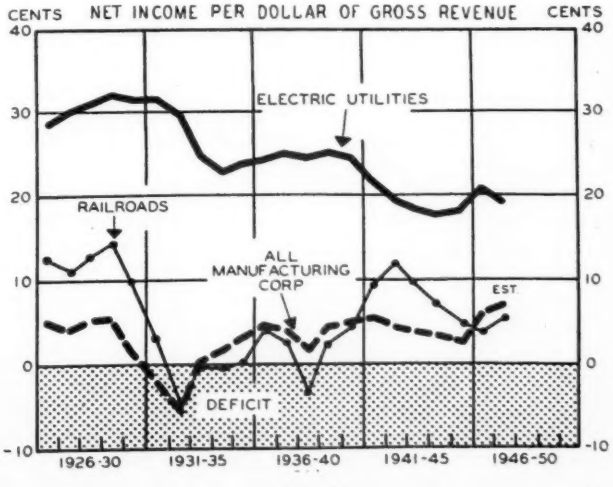


Fig. 6

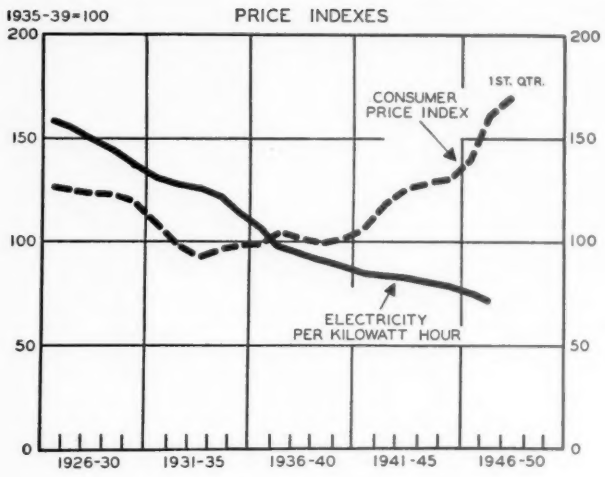


Fig. 7

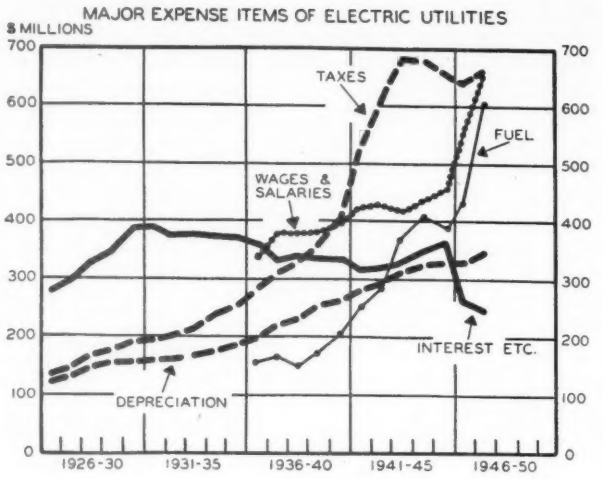


Fig. 8

corporations, through 1945. The 1946 and 1947 plottings are estimated from the published reports of leading companies.

For many reasons the three lines obviously are not comparable. The utilities have a much larger investment per sales dollar, or conversely a much lower rate of capital turnover, than manufacturing, and hence must have a substantially higher profit margin. The chart nevertheless is interesting in indicating the trends in these different industries. Manufacturing has been in the red, the utilities never. But it would be hard to say that there is any long-time downward trend in the profit margins of manufacturing, which is clearly the case in utilities.

Indexes of Cost of Living and Cost of Electricity

This narrowing of electricity profit margins has come about from pressure upon both sides of the profit-and-loss statement. On the revenue side, there has been an uninterrupted reduction in the average unit selling price of your services, despite the substantial upturn in the prices of almost everything else. This is shown in Fig. 7, showing indexes computed by the U. S. Department of Labor on cost of living (now called the "Consumers' Price Index") and the price per kilowatthour of all electricity produced by the private utility industry. Both indexes are based upon the 1935-39 average as 100.

At the present time, the general cost of living index is 68 per cent above that average, whereas the price of electricity is 30 per cent below. This reduction in the price of electricity is a stupendous achievement. It is a triumph of management, engineering skill, technological progress, and marketing policy. It is both cause and consequence of the growth of the industry. At the same time, however, it must be viewed with relation to the decline in profit margin just shown; to the effects of that decline in inhibiting improvement in net income and in rate of return on property; and in its general relation to the problem of raising new utility capital.

Major Expense Items of Electric Utilities

Pressure on the other side of the profit-and-loss account has come from the rapidly mounting costs, which are shown in Fig. 8. These figures are shown not in index numbers, but in millions of dollars per year, and must of course be considered in relation to total revenues, which were also rising, but at a slower rate.

For the entire period covered by the chart, the most sensational increase has been in taxes. It doubtless surprises most people outside of the utility industry to learn that taxes since 1940 have been larger than any other expense item, even larger than total wages and salaries paid. Taxes are outside your control, and they were the principal cause of the decline in margins during the war years. The peak of taxes, however, was reached in 1943 and 1944, and wages and salaries have now caught up. The increases in this item and in fuel during the past two years have been sensational. Depreciation charges have grown steadily, along with the increase in total plant and equipment, and of course must grow more. The reduction in interest charges (at the expense of the bankers and investors in utility securities) has been a welcome, even if minor, offset to the increase in practically all other expenses.

Electric Utilities' Expenditures for New Construction, Compared with Depreciation Charges

Fig. 9 shows another section of the utilities' financial picture that is directly related to earnings, namely, the heavy expenditures now being required for expansion of plant and equipment. It will be seen that the annual depreciation charges, also shown in Fig. 9, represent an internal source of funds that is substantial and steadily rising, yet is only a small fraction of the total supply of capital needed to finance new expenditures at the current rate.

Looking back at the period 1926-1930, expenditures for new construction average almost $800 million annually. In 1947, expenditures for construction were in the neighborhood of $1.3 billion, and for 1948 are estimated to rise to $1.8 billion.

The figures used in Fig. 10 are not quite the same as those in the last, because they include gas utilities with the electric, and because the figures come from the Department of Commerce and differ in some details. They show the uses and sources of funds required by these utilities in 1947. They needed $2,100 millions, of which $100 million was to finance increased materials and supplies, $100 million

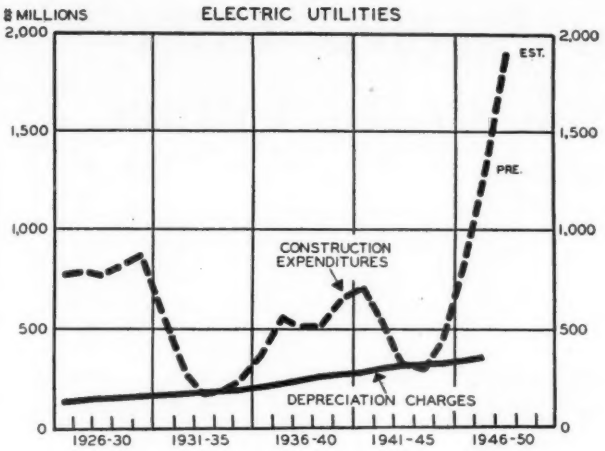


Fig. 9

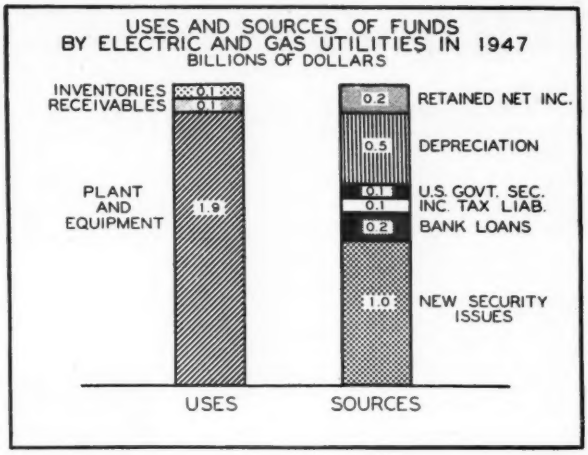


Fig. 10

for increased receivables, and $1,900 million for plant and equipment. The sources of the funds include $200 million of retained earnings, $500 million of depreciation, $100 million through sale of U. S. government securities, $100 million held against increased tax liabilities, $200 million of bank loans, and $1,000 million of new security issues. The industry had to go to banks and to the security market to get a little more than one-half of the money it needed. That is a measure of its current problem, of its need to appeal to lenders and investors, of its need to protect its own health and the investment standing of its obligations.

Finally, Fig. 11 is an attempt to sum up significant aspects of the record of the electric utilities as compared with all manufacturing corporations. Note that the figures used cover a ten-year period rather than the twenty years of the earlier charts, and that the bars simply represent percentage changes (1937-1947) for the two groups.

Normal Profit Margins

Look first at the columns on the right for all manufacturing corporations. These represent what I should call a normal and expected profit showing, following logically upon certain given developments. These corporations increased their gross plant and equipment 48 per cent; they increased their physical output 66 per cent; and with rising prices, they increased their total revenues 137 per cent. Their net income improved by nearly 300 per cent. This is a logical sequence.

Now look at the utilities on the left. They increased their gross plant and equipment (as reported) only 14 per cent. This is after write-offs of intangibles, and the increase in generating capacity was actually 26 per cent. However, they had an 88 per cent increase in total output. In other words, they made a much more intensive use of available capacity—relatively more intensive than that of the manufacturing corporations. From that point on the showing of the two groups diverges sharply. The utilities have been selling their product at declining unit prices. Whereas the revenues of manufacturers increased twice as much as the increase of physical output, the revenues of the utilities increased less than their physical output, or only 71 per cent. Net income increased still less, or only 31 per cent.

It is to the implications of declining selling prices, rising costs and declining profit margins that we should now address ourselves. Business has grown. Revenues have grown. Plant has increased only moderately, and over most of the period it was financed out of depreciation and retained earnings without recourse to outside sources of capital. Rate of return was maintained. Meanwhile, however, the growth of operating income did not keep pace with the growth in business. To put the matter as simply as possible, growth in vol-

(*Continued on page* 226)

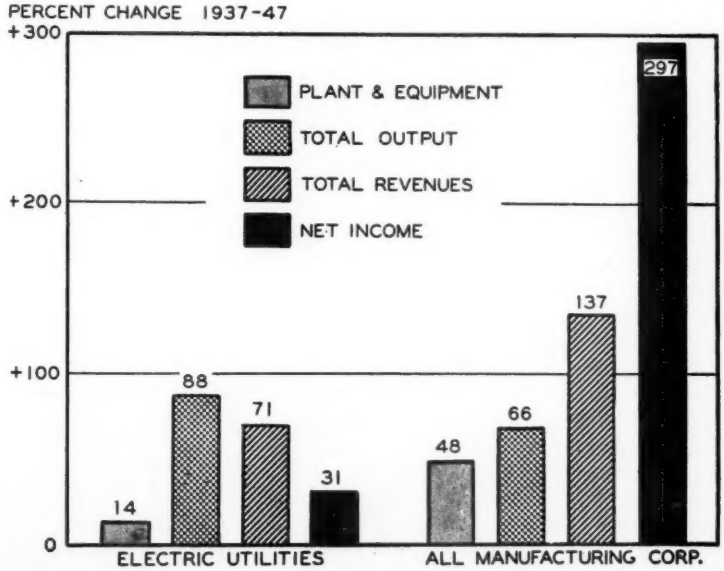


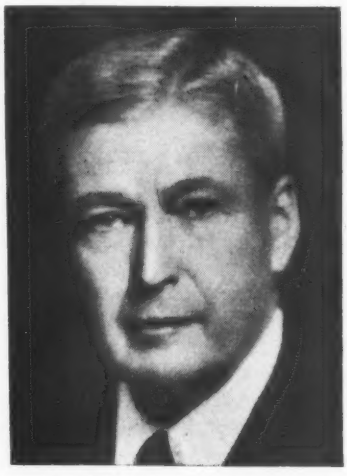
Fig. 11—Percentage Changes in Electric Utilities and Manufacturing

Recent Markets For Electric Utility Securities and A Look to the Future

By Edward Hopkinson, Jr.
Partner, Drexel and Company, and Past President of Investment Bankers Association of America

An Address before the Sixteenth Annual Convention of the Edison Electric Institute, Atlantic City, N. J., June 2, 1948

DURING all of 1945 and into the late spring of 1946, yields for all grades of public utility bonds continued down and prices continued upward under the pressure of investors to put idle funds to work. New issues, for other than refunding purposes, were relatively scarce. This is readily understood because materials for construction were still difficult to obtain and many companies, during the war period, had built up liquid reserves which enabled them to meet their cash requirements without new financing. Triple A bonds were selling close to the level of Governments, and the differential for slightly weaker issues was historically relatively narrow until you got to the Baa classification.



MR. HOPKINSON

Public Utility Preferreds

High-grade public utility preferred stocks followed a generally similar pattern, reaching a peak in market price and a record low in yield in the early summer of 1946 when, for a number of weeks, Moody's high-grade average stuck around a 3.40 per cent basis with the medium grade average at 3.69, a differential of less than 0.30 basis points. The change toward higher yields started in the later months of 1946, and became particularly acute toward the end of 1947. The lowest prices and highest yields came in February 1948 when the high-grade average was 4.07 per cent, with the medium grade at 4.56, a differential of almost 0.50 basis points. Since that time there has been a considerable improvement in the preferred stock market and the same average, about the middle of May, was 3.90 per cent, with the medium grade at 4.48, a differential of almost 0.60 basis points. As a matter of fact the medium grade average reached its high yield point in 1947 at 4.59.

Utility common stocks advanced sharply in 1945, as a successful outcome of the war became clearer and later in the year in anticipation of the repeal of the excess profits tax for the year 1946. A strong equity market continued until the summer of 1946 when sharp declines occurred, accounted for in part, at least, by the pressure of new offerings as the need for equity capital by all types of industry became urgent. This trend toward lower prices reached a low point in February and March 1948, under 32 for the Dow-Jones utility averages as compared with a high of almost 44 in the spring of 1946. The present recovery has carried this average to almost 36.

The averages referred to for all classes of utility securities, representing yields on seasoned outstanding issues, do not by any means reflect the prices of marketing new issues, particularly those of other than the very highest grade, after the turn came. New issues to be successfully distributed had to be offered at yields substantially higher than those represented by the averages of outstanding shares of comparable quality, and, in many cases, particularly preferred stocks, substantially higher than the yields of outstanding preferred issues of the same company.

Recent Stock Issues

Some examples, both in the case of bonds and preferred stocks, point this up:

In January of 1948, Southern California Edison Company sold at competitive bidding to underwriters 40 million 3⅛'s, due 1973 (rating "AA"). The underwriters purchased them at 102.02, with the intention of re-offering them at 102⅝, which would represent a 2.975 yield. At that time the Southern California Edison 3's of 1965 were selling to yield 2.83 per cent. Even before the formal offering the underwriters found a chilly reception and the offering price was reduced to 102.187, representing a 3 per cent yield. At that price the bonds were promptly sold, although the underwriters lost money on the deal, after expenses. The current market has now moved up to 104⅞-5⅜, a yield of 2.82 per cent, after an intermediate high of 105¼-105¾, a 2.80 per cent yield.

In March, 45 million Columbia Gas & Electric 3¼'s due 1973 (rating "A") were offered at 101¼, to yield 3.18. At the time the Columbia 3⅛'s, due 1971, were quoted 99½-100¼, to yield 3.11 per cent. The new offering was slow and when syndicate restrictions were removed on April 6, the bonds sold off and were quoted 100½-100¾. They continued down to a low on April 16 of 100⅛-⅜, a yield of 3.23 per cent, but have since recovered to 101-101½, a yield of 3.16 per cent.

Also in March, 40 million Ohio Power Company 3's due 1978 (rating "AA"), were offered at 100.99, to yield 2.95 per cent. At the time the same company's 3's, due 1971, were quoted 102½-103¼, to yield 2.80 per

cent. These bonds proved sticky and the syndicate price restrictions remained in force until their expiration by limitation on May 1, by which time the general improvement in the market had bailed them out, and they are now quoted 101⅜-101¾, to yield 2.91 per cent.

Preferred Stock Issues

In the preferred stock field, there can be given a number of illustrations.

In July 1947, Florida Power & Light attempted to market 150,000 shares Preferred Stock by competitive bidding, but no bids were received and the offering was withdrawn. In September 1947, 100,000 shares Florida Power & Light 4½ per cent Preferred was offered as a negotiated deal by underwriters at par. The price looked attractive at the time and, during the month it was kept in syndicate with price restrictions maintained, almost four-fifths were sold. On October 30, the price restrictions were removed and there were 21,000 shares of stock remaining unsold. On the day when the price restrictions were removed, the stock traded as low as 93½ and subsequently sagged to 88. The current price is quoted 90-91.

A little later in September 1947, 100,000 shares Tennessee Gas Transmission 4¼ per cent Preferred was offered by underwriters in a negotiated deal at 103, to yield 4.13 per cent. Immediately prior to the offering the outstanding issue of 4.10 per cent Preferred Stock of the same company was selling at 105, to yield 3.90 per cent. When price restrictions were removed, the new 4.25 per cent Preferred dropped to 93¼, to yield 4.56 per cent. The current market offering is about 97½, to yield 4.36.

On March 22, 1948, 50,000 shares West Penn Power 4.20 per cent Preferred was offered at 101¼, representing a yield of 4.15 per cent. Only about 50 per cent of the stock was sold, and when price restrictions were removed on April 1st, the stock was quoted as low as 98½-98⅞. The current market is 101¾-102¼, to yield 4.11 per cent.

A very recent issue is Oklahoma Gas & Electric Preferred. The company originally asked for competitive bids for 65,000 shares on March 30, but the date was postponed to April 5, and then cancelled. On April 8, these shares were offered as a negotiated deal, with a 5¼ per cent dividend rate, at 104, to yield 5.05 per cent. While it sold very slowly and remained in syndicate until April 20, it is now currently quoted at a premium over the original offering price, 104¾-105¼.

Certain experiences of the past may be relied upon as some guide for the future. If electric utility companies are going to finance to the best advantage their new capital requirements, they must make every effort to maintain or build up sound capital structures. The cost of money has a direct relationship to this factor. It can also be demonstrated that the harder the going in the money market, the more difficulty will be experienced by the companies with the weaker capital structures.

Securities and Exchange Commissioner McEntire, in an address before the National Association of Railroad and Utility Commissioners, in the summer of 1947, developed some interesting statistics based upon a SEC study "for a group of 70 companies, which constitutes nearly all the electric utilities whose common stocks are traded in sufficient quantity to provide a reliable market." He reported:

"At the end of 1946 these companies averaged about 50 per cent debt, 17 per cent preferred stock, and 33 per cent common stock and surplus. Only nine of these companies carried as much as 60 per cent debt; five of these nine had no preferred stock outstanding, so that common equity accounted for the remainder of the capitalization. Only two of these 70 companies had an equity of less than 20 per cent at the end of the last year and only nine others fell under 25 per cent in this respect. At the close of 1935 the books of nearly a third of these 70 companies showed less than 25 per cent equity. This ratio was per books, and, as we know, reflected much 'water' now eliminated by regulatory action.

Inadequate Depreciation Reserve

"In addition, the ratios, per the books of 1935, were also overstated because of inadequate depreciation reserves. In 1935 an 8.75 per cent depreciation reserve was about average and a reserve of as much as 15 per cent was rather exceptional. Today the average company in our 70-company sample has depreciation reserves amounting to 22.5 per cent and the reserves of only seven companies fall below even a 15 per cent level."

Common Stocks

In the same address Commissioner McEntire satisfactorily demonstrates that the common stocks of companies having the weaker capital ratios, sell at a lower price earnings ratio and usually at a higher yield than the stocks of companies more conservatively capitalized. The same thing is true of preferred stock yields. Of course the price earnings ratios of particular common stocks may be distorted by an unusually high or unusually low percentage of earnings paid out in dividends, as the yield factor is probably of more importance with relation to current market prices than the times earnings factor.

Commissioner McEntire divided the 70 companies referred to, into three groups. The companies in Group A constituted the upper third and had a median debt ratio of 37.5 per cent, very little preferred stock, and common equity including surplus of 58.7 per cent. At June 30, 1947, the common stocks of these companies sold at an average of 16.4 times earnings and 20.5 times dividends. Group B showed only slightly higher debt ratios, the median being 40.8 per cent, but due to greater use of preferred stock, the average common equity was 40.1 per cent. Earnings of this group were valued at an average of 13.1 times earnings at June 30, 1947, and sold at 17.5 times dividends. Group C had a larger debt burden, the median being 54.2 per cent. Preferred stock was less prominent than in Group B, and common equity amounted, on the average, to 34.2 per cent of the capitalization. The average Group C equity was priced at June 30, 1947 at 9 times earnings and 15.4 times dividends.

The names of the 70 companies used by Commissioner McEntire have not been disclosed, but their average market price probably corresponds pretty closely to those of the Dow-Jones Public Utility Common Stock Averages.

Commissioner McEntire further demonstrated that all companies in the sample having Triple A bonds, fell in Group A; Group B companies, to the extent rated, were double A credits, while A and Baa credits uniformly fell in Group C. At June 30, 1947, Moody's Triple A sold on a 2.53 per

cent average yield basis; Double A on a 2.60 per cent basis; A on a 2.72 per cent basis and Baa at 3.05 per cent. At the year end these were 2.88, 2.98, 3.08 and 3.29 respectively. The recent modest improvement in the bond market has lowered these yields, as of May 13, to 2.74, 2.86, 2.93 and 3.27 respectively. You will note the least improvement in the weaker Baa rating.

From the foregoing it is obvious that it is enlightened self-interest for any utility company to keep its structure, as nearly as possible, in sound balance so that it may realize a favorable investors' appraisal of its securities, whether they be bonds, preferred stocks, common stocks or securities dressed up with various wrinkles in an effort to make them more marketable at a better price.

Department of Commerce Survey

You are more familiar than any one else with the huge sums of money which must be obtained from investors over the near-term future in addition to those generated within the industry itself through depreciation reserve accruals, debt discount and other reserves and retained earnings. In this competition for the investor's dollar, there is the telephone industry, the natural gas industry and commercial business in general.

The United States Department of Commerce has recently made a study entitled "Business Financing in the Postwar Period," in which it is pointed out that "capital requirements amounting to 50 billion dollars for non-financial corporations in 1946 and 1947 inevitably led to a growing pressure of demand upon the available sources of funds for business investment—focusing attention for the first time in many years on possible deficiencies in the supply of capital, particularly equity capital." During 1946 a very substantial part of these requirements was available in the form of the excess liquidity built up during the war years, but a good deal of this had disappeared in 1947, as is shown by the very substantial increase in security issues in that year. Over two-thirds of the amount of net security issues during 1947 took the form of bonds, the remainder was distributed between common and preferred stock with the former much the more important of the two. The volume of net equity issues in 1947, i.e. both common and preferred, was about the same as in 1946, but there was a much larger rise in bonded indebtedness. Life insurance companies absorbed nearly four-fifths of the increase in debt securities during 1946 and 1947, while individuals bought stocks and sold bonds on balance in both 1946 and 1947.

According to the Department of Commerce survey, approximately half of the increase in security issues during 1947 was attributable to the industrial and miscellaneous industries, primarily manufacturing, while the other half is almost evenly divided between the telephone and electric and gas utilities. Manufacturing corporations, as a whole showed less dependence on outside sources of funds in 1947 than corporations generally.

The estimated four billion dollars of net new issues raised through the capital markets in 1947 by corporations other than investment companies, seems to be above the levels of the late 1920's, and probably was the highest in history. Corporate bank loans increased 3 billion dollars in 1947, nearly as high as in 1946, and was equalled previously only in 1919-1920 following the first World War.

Stock and Bond Yields

For any one interested in a comparison of bond and stock yields and other data having relation to various types of securities going back to 1919, this survey is to be commended, which states further:

> "Second, in view of the dangers in debt as compared with equity financing, it is generally agreed that every effort should be made to encourage the latter as part of any long-run financial program. The increased flow of public's saving into insurance, the greater role played by the Government—reflecting in part a changed world situation, and the related changes in the rates and structure of taxes, all help to intensify a problem of long standing, that of raising risk capital. No workable solution to this problem is likely to be reached which does not recognize these and other institutional changes in our economy over the past few decades."

Obviously the form the prospective new money offerings of particular companies will take, whether senior or equity financing, will depend on the situation within the particular company.

The unsatisfactory condition of the common stock market has led to the use both of debentures and of preferred stock convertible into common stock as an alternative to the direct marketing of their common stocks. This has worked well over a period of years for both the American Telephone & Telegraph and Commonwealth Edison. The principal disadvantage is one of mechanics involving the use of bonds in one hundred dollar pieces, and the problem of the small stockholder who usually receives only fractional rights to subscribe and to whom the subscription itself is probably hardly suited with its low interest rates.

Convertible Debentures

Two recent instances of the use of convertible debentures were the 16,677,100 dollars of Consolidated Gas of Baltimore 15-year 2½'s offered in April, 1947, and the 11,753,800 dollars of Virginia Electric & Power 15-year 3⅛'s offered in March of this year. In each case debentures were offered to stockholders at par, and are now selling for substantial premiums: Baltimore at 105½-106¼, and Virginia Electric & Power quoted at 109¼-109¾. The conversion, in the Virginia case was right on the market at the time of the offering. The Baltimore conversion was somewhat under the market and based on a sliding scale by which the first conversions were at a more attractive rate. Also the conversion privilege in the Baltimore case did not operate until something more than a year from the date of offering, thereby protecting the outstanding common against immediate dilution before the money raised through the debentures might have been put to work and begun to produce earnings.

Two other instances of the use of convertible debentures during the summer of 1947, were those of Public Service Company of Colorado and Public Service of Indiana, both of which were convertible slightly below the market for common at the date of offering, and both of which are now selling at premiums, reflecting the value of the conversion privilege as related to the current market for the common stock.

The most recent offering of convertible debentures to common stock-

holders is that of $57,382,600 Consolidated Edison Company of New York 3's. This offering to stockholders was underwritten on the same basis as that of Public Service Company of Colorado. The bidding took place on May 18, and only one bid, in the sum of $1,000 was received for the privilege of underwriting the offering and selling any of the convertible debentures not subscribed for by stockholders, sharing any profit with the company over the original offering price on a sliding scale. The debentures are convertible into Consolidated Edison common stock at the rate of $25 in debentures for each common share. At the time of the offering the common stock was quoted 24¼. The possibility of profit for the underwriters depends upon a) that the offering is successful, and b) that some stockholders, for one reason or another, do not exercise their rights. The rights do not expire until June 8. In view of the premium of over 6 per cent immediately bid for the debentures, the risk involved seems slight but, on the other hand, the amount of stock which the underwriters may get will likely be nominal.

Convertible Preferred Stocks

Several companies have offered recent issues of preferred stocks convertible into common. In January, Northern Indiana Public Service Company offered 272,694 shares 4½ per cent preferred stock (par $20) to its common stockholders at 18. The common was then quoted 15½-16½, and the conversion price was 20. Common stockholders of Northern Indiana subscribed for 16,685 shares. During the rights period, the underwriters publicly offered about 70 per cent of the shares, or 190,893 shares, at the offering price to stockholders of 18 less 85 cents obtained through exercise of warrants acquired by them, leaving a balance of 65,116 shares, which were taken up by the underwriters at the expiration of the subscription period and placed by them, also at 18, without organization of a selling group. The preferred is now quoted fractionally above the offering price, to yield about 4.90 per cent.

Two very recent convertible preferred issues are the 800,000 shares Southern California Edison 4.56 per cent (par $25), which was offered to the public at $26.25 per share, and convertible into common at $28.50 per share. At the time of the offering the market for the common was quoted 27-27½. The offering was successful and the preferred stock was recently quoted at a moderate premium over the original offering price.

On the same day, Southern Carolina Electric & Gas Company offered to its common stockholders, 80,858 shares 5½ per cent preferred at $50 a share. Each share of preferred was convertible into 7 shares of common, representing a price of approximately $7.14 per share. At the time of the offering the common was quoted fractionally under this price. The rights period did not expire until May 25, and at the time of preparation of this paper the result of the offering was not available.

Sinking or Purchase Funds

To assist in marketing preferred stocks, some utility companies have recently included provisions for sinking or purchase funds.

For many years some industrial preferred stocks, particularly in the case of smaller and less known companies, have had various types of sinking or purchase funds. These have served a dual purpose: a) to create some market for the securities themselves, and b) to gradually retire the issue. During the low-yield period in 1946, a number of large institutional purchasers, recognizing the unlikelihood of the permanent maintenance of such preferred stock yields, many of which were as low as 3½ per cent began to insist on sinking funds, particularly in issues privately placed or where the market was not likely to be sufficiently broad to furnish a ready means of selling. Some examples of low dividend industrial preferreds having sinking funds brought out during this period are:

H. J. Heinz Co.	3.65%
Borg-Warner Corp.	3½%
Jewel Tea Co.	3¾%
Scovill Mfg. Co.	3.65%

Late in 1947, to meet this position of some of these large institutional purchasers, some electric utility companies adopted sinking fund or purchase provisions. I believe the first publicly offered preferred of an electric utility company, with a sinking fund, was that of 75,000 shares Appalachian Power 4.50 per cent Preferred, which was offered on December 4, 1947. This sinking fund is 2 per cent of the maximum shares outstanding and begins in 1948.

Almost immediately thereafter, on December 10, 1947, 800,000 shares ($25 par) Southern California Edison Company 4.88 per cent Preferred was offered. Here the preferred stock contract did not provide for a sinking fund but the directors, by resolution, stated that they would retire 16,000 shares (2 per cent) annually beginning in 1949, provided they could purchase it at not exceeding the original offering price of 26.25. Three other electric utility preferred issues recently offered had a sinking fund provision: Northern Indiana Public Service 4½ per cent Convertible Preferred (2 per cent), Indianapolis Power & Light 5 per cent Preferred (2½ per cent) and Florida Power Corporation 4.90 Preferred (3 per cent).

In the new issue of Consumers Power Preferred there is a purchase fund, the effect of which will require the company to endeavor to purchase annually, commencing in 1949, at prices not exceeding the initial public offering price thereof, not less than 2 per cent of the maximum number of shares at any time issued and outstanding. Most of the natural gas company preferred stocks do have sinking fund provisions, but there is definite logic in providing a sinking fund on all senior issues of natural gas companies.

Are Sinking Funds Necessary?

In my opinion, the inclusion of a sinking fund (or to a lesser degree a contingent purchase fund) is an expensive procedure and should be adopted only as a last resort. As far as can be foreseen, an electric distributing public utility is a permanent enterprise which will require expansion as long as the population of this country continues to grow. Therefore, to obligate yourself to retiring what should be permanent capital creates an obligation, if you have the earnings, just as real as any other debt but without receiving either the lower interest rate or the important Federal tax advantage realized from interest paid. In the long run, a public utility company will be better advised to pay, if necessary, somewhat higher dividends without a sinking fund because, after all, the rate of return in a regulated industry has relation to the cost of money.

As an illustration of the comparative expense of a preferred stock bearing a 4½ per cent dividend rate, with a 2 per cent sinking fund, and a 25-year debenture bearing a 3¼ per cent coupon, also having a 2 per cent sinking fund: on the basis of a $7,500,000 issue in both cases, the operation of the sinking fund would retire half the issue, and net savings in service charges on the debentures after giving consideration to the tax savings at present rates, over this period, would amount to approximately $3,541,000 or 47.2 per cent of the issue. As an alternative, if the annual savings resulting from the lower servicing cost of the debentures were applied to the further reduction of the debt, all but $93,000 principal amount of debentures would be retired in 22 years, while at the same date there would be remaining approximately $4,350,000 principal amount (58 per cent) of the 4½ per cent preferred issue.

A Look to the Future

Any "look to the future" must include certain assumptions as to business activity and, indeed, as to government fiscal policy, both of which are vital factors in any attempt at an appraisal of tomorrow's money market.

A recent bulletin published by the Philadelphia Federal Reserve Bank was entitled: "1947: Year of the Slump That Never Came." Recent events, however, make any important recession in business activity during the year 1948 more unlikely than some of our economists and forecasters thought probable, until recently. The adoption of the European Relief Program on a non-partisan basis, the corollary rearmament program and the passage of the tax relief measure over the President's veto, by overwhelming majorities, are all constructive steps forward.

The adoption of these measures should strengthen our own confidence in the future and certainly reconstruction of Western Europe and our own preparedness for war, if need be, is the best way to minimize the likelihood of war. True enough, the added foods and goods required for the European Program and for our own rearmament, while they do not represent an important percentage of our total production, mean some increase in inflationary pressures.

National Fiscal Policy

Now one of the important factors in making any assumption regarding future security markets is how wisely the Treasury and the Federal Reserve system handle the national fiscal policy.

One school of thought has more or less consistently advocated monetary and/or price controls to cure inflation. There is no magic formula to halt inflation, and the only real answer lies in greater enterprise and in greater production. If this is the right answer, then the measures which should be encouraged by Government, and by private enterprise, are those which will create a healthy atmosphere for business and stimulate greater production, so as to more nearly bring into balance the supply of goods with high demand, which is a natural corollary of full employment at high wages.

Great monetary inflation during the war was inevitable. Control of the supply of money is now in the hands of our fiscal and monetary authorities, not the commercial banks of the country. The balance between inflation and deflation will depend upon the wisdom with which the authorities exercise these controls. This caution and wisdom was not exercised in 1920, 1929 and 1937, with the result that deflation was precipitated and, once started, was hard to stop, as has been proved in those disastrous episodes in our financial history. The Federal Reserve System should continue to follow its present policy of modest action to restrain a further expansion of bank credit, but for it to take aggressive action to reduce the existing supply of available funds, might well produce a disastrous check upon the expansion of business enterprise so necessary to increase production.

To bring about deflation by general credit restriction, it must be such as to create unemployment and an indiscriminate reduction in consumers' disposable income before it could be effective. The food price situation is one of our most serious problems and continued high or rising prices for food makes much more likely another round of wage increases, and so on. But we cannot expect a reduction in the aggregate demand for food (or other consumer goods) by following a policy of allowing government security prices to seek their own level, or by forcing security prices down by Federal Reserve sales to contract credit, unless the policy were carried to a point that substantially reduced production and employment, and, therefore consumers' disposable income.

Under present conditions, a general railroad strike would have been disastrous to the accomplishment of the necessary greater production to balance the attempted inflationary pressures. A coal strike could have the same result, although in a lesser degree. It is encouraging that the steel companies have held the line on wages and made some reductions in prices, although these latter do not importantly reflect themselves in the current cost of living. Except to correct inequalities, we must have the courage to hold the line on wages and gradually make some reductions, as may be justified by a decrease in the cost of living.

High Business Activity

If, therefore, this equilibrium is not disturbed, we should look for a continued period of high business activity and full employment. While some firming in short-term money rates may be anticipated, as indicated by the recent testimony of Allan Sproul, President of The Federal Reserve Bank of New York, before the Joint House-Senate Economic Committee, this need not disturb considerably basic long-term money rates around present levels. As pointed out by Mr. Sproul, "Prior to 1930 . . . short-term interest rates were more commonly above long-term rates than the reverse . . . In theory at least so long as we are firm in our suport of the 2½ per cent rate for long-term Government Bonds we have made that a demand rate and there is no reason why rates on shorter term obligations could not approach this figure. The facts as distinguished from the theory of course might suggest or require that we stop at a lower figure."

One other factor might disturb rates and the prices of securities, and that is the dislocation of the law of supply and demand by industry pushing out securities faster than the market can absorb them. If industry exercises self-restraint in its construction programs and does not flood the market with securities designed to produce cash way beyond current requirements, then we may have an

(*Continued on page 227*)

Broad Economic Trends As They Affect The Utility Industry

By Dr. Lionel D. Edie

President, Lionel D. Edie and Company, New York, N. Y.

An Address before the Sixteenth Annual Convention of the Edison Electric Institute, Atlantic City, N. J., June 2, 1948

THE subject to which I am directing my remarks is a controversial one. It is one that is in the middle of change. It is one that is headed in a constructive direction at long last. I speak of utility rate structure and the manner in which certain broad economic trends necessitate a dynamic theory of utility rates. By dynamic theory I mean a recognition of the inability of the utility industry to operate satisfactorily at a continuously declining price trend for the unit product of that industry. The downtrend in the unit price of the product of this industry must not only stop; the trend of the price must turn upward. In other words, the broad economic trends in this country today dictate and compel an increase in the rate structure of the electric utility industry.

DR. EDIE

Trend to Mechanization

There is a trend in industry generally which gives the great force of demand to the utility industry, and that is the trend to mechanization within manufacturing and nearly all other lines of business. This trend of mechanization causes the great expansion of facilities on the part of the electric light and power industry, which is now in process. It is the only way by which the productivity of labor can be increased and can be caused to pursue a steady trend of improvement from year to year. It means that more power must be made available for each worker, more horsepower per man must be applied to manufacturing, transportation, and all other phases of American business.

Over a long period of time there has been a very close relationship between the trend of output per man hour, the productivity of labor, and the amount of power available per worker. In order to keep a steady growth in the productivity of American industry, there has had to be a steady increase in the horsepower per worker.

In the decade from 1919 to 1929 the horsepower per worker increased by one full unit of horsepower. In the next decade, '29 to '39, there was the same increase, but in the present decade, from 1939 to the end of 1949—estimating for the last year and a half of that decade—the amount of power per worker, instead of showing an increase for the decade, will be just about the same in 1949 as it was in 1939. For the first time in this generation, even though the electric industry will have gone through a great period of expansion of facilities, the amount of power available per worker in American industry will be no bigger at the end of the decade than it was at the beginning of the decade.

Now, that is a very remarkable circumstance and may seem incredible, but I assure you that that is substantially the fact.

Along with that fact, another very important phase of the demand for the product of utilities at this time is the ratio of power purchased outside manufacturing and other industry to that which is self-installed by industry. In 1919 the power purchased outside was 31 per cent of the total. By 1939, 20 years later, the power purchased outside was 58 per cent of the total. By 1951, assuming that the present expansion program is carried out, 75 per cent of the total power used in industry will be purchased outside industry.

So that in 30 years, we have gone from 31 per cent up to about 75 per cent in this important ratio.

Electric Power and Production

One consequence of this is that a new relationship has established itself between the trend of production of all physical goods and the trend of sales of power by the industry. At full employment, the index of production in 1951 would be roughly double the pre-war level. In order to bring about a doubling of the physical volume of production, it will be necessary to bring about a tripling of the amount of the electrical power used in American manufacturing. It takes triple the kilowatthour sale to industry to double the physical volume of industrial output.

While these physical trends are going on, there are certain financial and dollar trends which are perhaps even more important. There has been for a great many years a very striking relationship between the sales of electrical energy to residential users and the income which was received by the people of this country. This ratio between residential demand and income payments has been distorted during the war period with the result that even though the domestic load is higher than ever before, the share of the consumer's dollar that is today being spent for electrical energy is 25 per cent below normal. Normal simply means the average historical

relationship between the share of the consumer's dollar going to electricity and the total income payments.

Trends in Money Value

While this subnormal position prevails, there is a third trend which lays the groundwork for a new pressure on the rate structure. That trend is in the value of money itself. The value of money has changed since the pre-war period. It has changed at wholesale. The dollar will buy at wholesale somewhat less than half what it bought before the war. It has changed at retail. The purchasing power of a dollar has shrunk at least 40 per cent since 1939.

These changes in the value of money are permanent changes. There are some people who still entertain the thought that at a given point, we shall suddenly see all prices corrected back to pre-war levels, or if not all the way back, half-way back. It is a false hope. The price level has changed permanently and we are on a new plateau of prices. Not in any of the years of the near future are we likely to see even remotely a return of the pre-war level of prices.

But in one direction there has been an increase in the purchasing power of money, and that is in the services rendered by the utility industry. The price per unit of product for this industry has gone down while inflation has prevailed universally throughout the American economy and throughout the world.

That contradiction between the price trend in the utilities and the price trend everywhere else has been building up an unbalanced situation which cannot last very much longer. We are nearing a point where a change has to come about, and the only place where that change can be effected is in the rate structure of the utility industry.

In order to indicate some of the more practical phases of this problem, I should like to try to make a number of specific points. First, I would say that attention should be given to the dividend dollar. The dividend dollar in the electric utility industry has been a stable affair as far as the nominal amount of dollars disbursed was concerned, but it has not been a stable affair so far as the purchasing power of the dividends was concerned.

To illustrate this, I have recently examined ten operating companies that I would classify as leading companies, well-known companies, and companies whose common stocks would command the interest and attention of any typical investor. Among those ten operating companies there were five that between 1939 and 1947 had either slightly increased their per share dividend rate or had held it at least even. But there were also five out of the ten in which the per share dividend rate was lower in 1947 than it was in 1939. For the entire ten companies, the average of these dividend changes amounted to a decline of 6 per cent in the per share dividends paid in 1947 over 1939.

Now, if you take into account the fact that the persons who received these dividends were subject to the same change in the value of money as I have mentioned previously, we find that in real value the stockholder in those operating companies was from 40 to 50 per cent worse off in 1947 than he was in 1939, although the actual number of dollars paid out in dividends, the nominal dollars, had not changed except to the extent of 6 per cent. The purchasing power was changed.

"Steady Income"

It is common practice in investment circles to refer to utility common stocks in this manner: "Well, if you want a good steady income, utilities are all right. Buy a good utility common stock for a steady income. You don't have to worry about income; they will keep on paying the dividend." That is fully true. I don't question it in the least. But there has not been any stability in the purchasing power of the dividend, and hence the real value of the dividend has lacked this element of steadiness which is supposed to be fundamental to the utility common stock.

That may be all right for the past but it is not all right for the future. It is not all right when a utility undertakes to raise new equity money and goes to the stockholder or the prudent investor today and tries to make an appeal to that investor to put new capital into a stock offering. That prudent investor has a right to ask some very penetrating questions. He has a right to know whether the company in question is interested in trying to give him a dividend over a period of years that will have stability, not only in the nominal sense but in the sense of the real purchasing power.

The time has come, I believe, when this will prove to be a vital factor in the raising of new capital by the equity route.

New Concepts Needed

There are several concepts and ideas which stand in the way of accepting this point of view, and one is the fact that for years now leaders in the utility industry have been pointing with pride, and justifiably so, to the splendid record of this industry in being able to lower the unit price of the product at a time when all other prices are going up. I say it has been a fine accomplishment, and I am not in any way criticizing the way in which the claim has been made in the past. But the time has come when the utility industry had better stop pointing with pride to this deflationary trend in the price of its product. The time has come when the industry can no longer afford to operate on that basis, render the right service to its customers and do justice to and play fair with the investors who put up the capital for the business.

In other words, a change of attitude has got to come within the industry itself on this question of the price trend of the product of the industry.

To put this in a slightly different way, among investors today there is a tendency to challenge the right of the utility industry to ask for new equity capital because the investor will say, "This is a period of wonderful expansion. I hear about a six billion dollar program over a period of three or four years. I hear about all of the things that are being done bordering on a miracle of increased facilities for power of all kinds. But," says the prudent investor today, "will you please show me to what extent all this expansion benefits me as a common stockholder in an electric light and power company?"

He has got to have some pretty definite sign that he gets a benefit. Well, he has the benefit of the time-honored axiom, a stable dividend, but stable only in nominal dollars, not in the purchasing power of the dollar. That is no longer enough to attract equity capital in adequate amounts in the utility field.

Who does get the benefit of this great expansion of facilities? As far

as the investor can see, the consumer gets the benefit, that is, the consumer of the power. The stockholder has not had an equitable share of the benefits of this great expansion period in the utility industry, and therefore the stockholder is ready to issue a kind of challenge that if he is to put up new equity capital, the question of sharing in the benefit of future growth and future expansion must be faced and must be given a different answer from the one that has prevailed during the last few years.

What Should the Stockholder Expect?

Let us consider the question, what ought the stockholder to expect? What is fair for him to seek in the future in order for him to feel that a utility equity is attractive? First, he ought to see a prospect not only of stable dividend but of an increasing dividend to compensate for the risk of the changing value of money.

Second, he ought to see earnings sufficient in a utility so that the coverage of his dividend is a generous coverage and gives him confidence in the continuity of that dividend.

The kind of earnings coverage that he has, must bear some relation to the earnings protection that is found in other lines of industry. For instance, in manufacturing industries generally today, the corporation is paying out about 45 per cent of earnings, but in many of the leading operating companies in the utility field, the pay-out is 75 to 80 per cent of earnings, and in some cases higher than that.

The utility which seeks to raise new capital in the equity market is in competition with all these other lines of business, where the earnings coverage over and above dividend is more generous than that which applies in a typical operating utility company. And it is very difficult to meet that competitive situation unless the utility is permitted to earn more money so that the protection of the dividend is more thoroughly assured that it is at the present time.

That is what the stockholder is entitled to ask for, that is what he is entitled to get, that is what he should receive, if an appeal is going to be made to him to put up large quantities of new equity capital.

Many people are blaming the small amount of new equity financing on various scapegoats, of which the principal one is taxation. It is said that the individual surtax rates prevent people from saving equity capital. It is said that corporate earnings are subject to what is in effect double taxation. There are various other faults that are found with the tax system, and the utilities can't raise equity capital because taxes are wrong.

I happily join with any group that wants to criticize the tax system. There is a lot of truth in blaming the shortage of equity capital on bad taxes, but in the present state of affairs I believe that the tax alibi is considerably overplayed. The difficulty and problem of raising new equity capital in the utility field would be with us and would be acute even if the tax question were almost completely solved.

The problem here is not merely a question of whether the investor has the equity capital available, but it is a question of whether he wants to put it in this particular type of equity. It is a question of the quality of the equity that is being offered. The shortcomings of the equity in the utility field today are due to the heritage of the last ten years or more in the philosophy of rate regulation. That philosophy in operation at a time when the value of money has been changing, at a time when the expansion of the industry has been so great, has brought us now to a juncture of affairs where something has to give way. And I say the rate structure has to give way.

One Jump Ahead of Inflation

Well, one might say, "Why hasn't this movement started? Why hasn't it started more obviously, more aggressively? Why can't we see signs more generally of an active trend toward a different style of rate adjustment?"

There are several reasons why it hasn't happened thus far. One of these reasons is because up to this point the economies that management has brought about in operation plus the growth factor, the expansion of revenues, have tended pretty well to absorb the higher operating costs—higher labor costs, higher coal costs, and so on. So far these have been absorbed, but we are about at the end of that rope. Moreover, a great many managements have been very reluctant to make any move as yet because they have counted on the technological improvements in the new capacity that was installed to keep lowering their costs and keep them one jump ahead of the inflationary trends that were always worrying them on the cost side.

I have great respect for the technological improvements in the new capacity, but the people who have been depending on that to save them from a wholly different attitude toward rate structures are going to be gravely disappointed. They are going to find that they are behind the procession because this technological improvement is not going to be sufficient to solve the problem for a great many of the operating companies.

Inertia in Industry

More obviously there is another reason why this movement has not taken on any great force just yet, and that is the natural inertia of an industry, the reluctance to make application for rate increases, the feeling that there is something rather dangerous in public relations if a company goes to the Public Service Commission and explains why it needs better rates. There can always be a counterattack, propaganda attack, smear campaign—it is a public relations problem and people are timid about getting into that.

That explains why this movement has not progressed very far up to the present time. But we are right now, in the summer of 1948, going through a very important transition from a timid and reluctant attitude on the rate question to one of boldness and initiative and leadership. We are in the middle of that transition now.

As we move along over the next six to twelve months, we should find a number of things developing which confirm this new trend in the rate structure, and I shall mention just a few of these things that are in the offing.

First, management itself is going to change the whole public relations approach on this question of the trend of the price of electrical energy. This boasting about the downtrend in the price of power against the up-trend in the price of everything else under heaven has reached a point where it serves a negative and harmful purpose in getting the utility industry to take a realistic and constructive approach

to the rate problems of today and tomorrow.

The second thing is that it is necessary to make an attack upon a school of thought that has more or less power in this country. There has to be an attack on the idea that the consumer of power should be the sole beneficiary of this great period of expansion in the electric light and power industry.

The next thing that has to happen is the development of emphasis, on the positive side; the emphasis must be on the rate structure and raising capital.

The telephone industry has taken quite a strong lead in the development of this type of thinking. The basis of application in the telephone industry for rate increases during the past year has very largly been the necessity of such rate adjustments for purposes of capital raising.

New Logic on Rates

The introduction of this new idea, this new logic, requires a great deal of imaginative and creative thinking. It is on the way in the electric light and power field, and the precedent that has been established, the trail that has been blazed by the telephone industry, is very important and will have a very considerable effect on the mental process employed in this industry.

If there was doubt about this, if there was some legitimate reason for saying. "Oh, well, don't get excited about this. After all, this will get straightened out," that doubt was rudely brushed aside last week when one of the leading automobile companies shook the world with its wage settlement. Up to that point a considerable amount of very constructive work had been done in the electrical equipment field and the steel industry to hold the line on wages this year. Inflation was fought, prices were cut rather than wages raised. But one leading automobile company broke away from that pattern. It created a situation that leaves us today in a very uncertain frame of mind—the possibility of a third round of wage increases, a bigger round than seemed at all necessary, now has to be faced. I believe it is fair to say that if there is going to be a third round of wage increases following substantially the pattern now in the automobile industry, that third round of wage increases necessitates the first round of rate increases for the utility industry.

The utility industry absorbed the first round of wage increases and the second round of wage increases and took it in stride by economies, by efficiencies, by growth and expansion of revenues—they absorbed the first and the second rounds, but the third one, if it is to be similar in scope to the precedent now established in the automobile industry, cannot be absorbed by the utility industry under present rates.

So the third round of wage increases, assuming that they are of the nature of those now established in the Detroit area, will speed up and put great pressure on the trend toward a new and dynamic theory of rate adjustment in the electric light and power industry.

Let me make very clear that I am not advocating any reckless scramble for rate increases, and I certainly don't want to suggest at all that the electric light and power industry should go out and add to all the inflationary pressures that exist. There is strong need to keep a great many things in balance, and in this industry the balance is being rather seriously challenged at the present time by the discrepancy between rate structure in the electric light and power industry and the price structure throughout all the rest of the economy. And that has got to be changed—not in any revolutionary way, but by leaders in this industry becoming conscious of the problem of balance and deciding that each one will be willing to do his part in trying to maintain that balance, and where it has been violated to get back to it.

Now, if the utility companies themselves don't take that initiative, others outside the industry would criticize them and perhaps even try to force such a lead on management. Over last weekend one of the New York papers carried a statement—a quotation from one of the SEC Commissioners which I assume was correctly reported. The Commissioner is reported to have said, "The only reason investors did not take more common stock of utilities in 1947 is that more was not offered."

Now, it is possible that that is not merely an invidious remark. It is possible that it carries a lot of implications that would be well worth exploring. I can well imagine that more utility equities could be sold if more were being offered, but I am not at all sure it would be a good thing to sell more utility equities today because the investor has got to be considered not only as a source of money but as a source of good will. Of what avail is it to put over a deal—to say yes, we put out a hundred thousand shares of common stock, we got away with it—then a year or two or three years later find that the people who bought that common stock are not happy with the deal they made?

If we are going to try to sell more common stock in the utility field, we must do all within our power to make sure that that stock has been surrounded with proper safeguards, with the economic protection to which a common stock is entitled if it is to appeal to the prudent investor. We must have in mind not only our ability to sell the stock but to keep it sold and to keep it sold to a satisfied, prudent investor. And we have come to the point in this great post-war period where rate increases are necessary in order to give the equity investor the protection which he needs if he is to put up the new capital and to keep the utility industry in a sound and well-balanced financial position.

Ralph P. Wagner Appointed Chairman of Better Light Better Sight Bureau

Ralph P. Wagner, commercial manager, New York Power and Light Corp., Albany, N. Y., has been appointed Chairman of the Better Light Better Sight Bureau, for the next two years, it has been announced by the Bureau.

Mr. Wagner succeeds Harry Restofski, sales promotion manager, West Penn Power Co., Pittsburgh, Pa., who recently assumed the duties of Commercial Division Chairman of the E.E.I.

Mr. Wagner will supervise all activities of the Bureau, which is now planning to supplement the educational materials it supplies as part of the industry-wide Planned Lighting Program, and to expand its present program of supplying information on light and sight to teachers in various school grades.

Report of the Prize Awards Committee

Presented by H. M. Sawyer
Chairman, Prize Awards Committee, E.E.I.

An Address before the Sixteenth Annual Convention of the Edison Electric Institute, Atlantic City, June 3, 1948

THERE were four commercial contests available to electric utilities covering activities in 1947, and the numerous and excellent entries submitted are an indication that we are once more getting in stride on sales promotion, despite the tight capacity situation.

Curtis	35	entries
McCall	29	"
Hughes	19	"
Martin	9	"
	92	

We were fortunate in having with us from Hotpoint, donors of the George A. Hughes' Awards, its president and vice president, Jim Nance and Len Truesdell. We were happy, also, that Miss Camille Davied, Home Making Editor of McCall's Magazine was with us for the presentations. Representing the Curtis Lighting Company, sponsors of the Augustus D. Curtis Award, were Mel Wilt, President, and Mr. Darwin Curtis. We were sorry that Mr. Thomas W. Martin, donor of the Martin Award, was unable to be with us.

I know I speak for the industry in expressing appreciation to the donors for making available these contests with cash prizes totalling over $5,000.

Trials of the Judges

The panels of judges who so competently reviewed the entries and chose the winners labored long and conscientiously and were quite unanimous in their praise of the results achieved by the various sales departments during 1947. As typical of the experiences of the judges of the various contests, I should like to quote excerpts from a letter sent to the Institute by Mr. Marshall Waterman of Electrical Testing Laboratories after he and Messrs. Berlon C. Cooper of the publication "Electrical Construction and Maintenance" and James Krieger of the publication "Lighting and Lamps" had decided on the winners of the Curtis Awards:

MR. SAWYER

"We started work at 2:15 p. m., February 17, on the entries presented to us. The general level of merit being high, we found few that stood out strongly by reason of relative superiority or inferiority. Therefore selection was a painstaking task.

"Working until 6:30 p. m., the judges reduced the candidates for the award to 16 entries. Following an hour's recess, we worked from 7:30 to 9:30 to reduce the number to 9 entries. Between 9:30 and 10:15 final selection of the 4 winners was made.

"The time-consuming review gives an indication of the fact that a considerable portion of the entries were 'in the running' until the final selection. This in turn speaks for the merit of all the entries in the opinion of the judges."

And now to review for you the winners of the awards:

HUGHES AWARD

The prizes in Class I covering the promotion of electric kitchens consisted of a trophy to the winning company and plaques to the companies placing second and third. Prizes to the individual or individuals were $500, $300 and $200 respectively. The winners were: Philadelphia Electric Company, Georgia Power Company and Indiana Service Corporation. Individuals receiving the cash awards were: George E. Whitwell, Miss Elizabeth Parker and John Shannahan.

Class II covered the promotion of electric ranges. Trophy and plaque awards were similar to those in Class I. First prize was won by the Florida Power Corporation and second prize by Gulf States Utilities Company. Receiving the cash awards of $300 and $200 respectively were Robert H. Giedd and Parker Allen.

Class III covers promotional activities in the very important and ever-growing market for heavy duty electric cooking equipment. Hotpoint, Inc. in making this award available has recognized that it is profitable not only to the utility but to the customer and the dealer as well. Wisconsin Electric Power Company received a trophy for first prize and plaques were presented to the Birmingham Electric Company and the Union Electric Company of Missouri who placed second and third. The prize awards of $250, $150 and $100 were received by Messrs. Kant, Cale and Sansbury.

Our thanks go to the judges who were: L. E. Moffatt, *Electrical Merchandising*, Harry E. Warren, Ralph Jones Agency, and W. Grant Parry, New Jersey Power & Light Co.

AUGUSTUS D. CURTIS LIGHTING AWARD

The Augustus D. Curtis Lighting Award is offered to help create a high standard of illumination in conformance with the latest scientific advances in the lighting field. Four cash prizes are offered—$200, $100, $150 and $25—and the winners were as they placed: Norman Tindal, Duke Power Co., C. E. Romberger, Luzerne County (Pa.) Gas & Electric Corp., Lucian T. Knight, Duquesne Light Co., and Frank O. Evans, Indianapolis Power & Light Co.

PLANNED LIGHTING AWARDS

Most of you are familiar with the Planned Lighting Program for the electric industry that was launched

RALPH MOODY, left, executive vice president of the Union Electric Co. of Missouri, receives the Reddy Kilowatt Annual Report Award for his company from ASHTON B. COLLINS, right, president, Reddy Kilowatt Service. H. M. SAWYER, Chairman, E.E.I. Prize Awards Committee, center.

J. A. POLLOCK, center, line crew foreman of Georgia Power and Light Co., accepts the Matthews Valor Award for his crew from the founder of the Award CLAUDE L. MATTHEWS, right, president, W. N. Matthews Corp., St. Louis, Mo. H. M. SAWYER, Chairman, E.E.I. Prize Awards Committee, at left.

under the sponsorship of the Edison Electric Institute last year. Several committees of the E.E.I. cooperated in developing a coordinated industry program to provide electric utility companies with the most comprehensive promotional and educational campaign ever aimed at increasing the use of better lighting in five markets—residential, store, school, office and industrial.

In May of this year the E.E.I. and the Better-Light Better-Sight Bureau made available, covering activities for the period from March 1, 1948, to March 1, 1949, a contest to tie in with this program to be known as the Planned Lighting Awards. The awards will cover residential, commercial and industrial markets. While detailed terms have not as yet been distributed, it has been determined that there will be cash prizes amounting to $1,500—$200 and $100 for first and second prizes in each classification, and an engraved bronze plaque plus $500 to the company with the best program in all three markets combined.

The activities to be considered by the judges of the entries will include educational programs to teach Better-Light Better-Sight principles, sales promotion and selling of Planned Lighting installations, cooperation with other elements of the electrical industry, sales training, advertising, model installations and other promotional methods.

May I urge management to fully acquaint their lighting sales representatives with the terms of this contest, when they are available, and encourage their participation therein.

THOMAS W. MARTIN AWARD

Certainly all of us recognize the necessity for load building activities in farm and rural communities. Rural lines are often extended as part of the obligations of a public utility and often the return on investment is inadequate. Because of this the importance of load development is self-evident. Greater kilowatthour consumption is the utility's aim but in advancing our own interests we advance, as well, the interests of the individual and the community.

The judges of the entries this year were: Truman E. Heinton, Division of Farm Electrification, U. S. Dept. of Agriculture, Beltsville, Md., George Rietz, General Electric Co., and Lloyd Partain, Curtis Publishing Co.

Thomas W. Martin, the donor of this award, must certainly have impressed on his organization the importance of rural load building and I know was proud to have his own company win the award for the second time. Our congratulations to Mr. Martin and the Alabama Power Company.

McCALL AWARDS

The Laura McCall Awards have been available to electric utilities since 1940. They have brought to the industry's attention the outstanding accomplishments that are attained by our home economists in furthering public relations and load building. In rendering service to customers our home economists are invaluable.

The entries submitted for the McCall Awards this year were numerous. Our very capable judges were: L. A. Dunn, United Illuminating Co. of New Haven, Conn., Bob Oliver, General Electric Co., J. M. Stedman, Pennsylvania Power & Light Co., Miss Grace Diebig, Westinghouse Electric Corp., Mrs. Rita Mataraza, Central Hudson Gas & Electric Corp.

There were three divisions to the award, the third providing for three winners. The prize to the individual was, in each case, $200 and, to the company, an engraved bronze plaque. The winners were: Division A—Miss Leonora O'Neal, Gulf States Utilities Co., Beaumont, Texas; Division B—Mrs. Routh T. Neill, Kingsport Utilities, Inc., Kingsport, Tenn.; Division C—Miss Susanne Wofford, Mississippi Power & Light Co., Greenville, Miss., Miss Vivian Marshall, New Orleans Public Service Co., New Orleans, La., Miss Virginia Thabet, Appalachian Electric Power Co., Abingdon, Va.

CLAUDE L. MATTHEWS VALOR AWARD

Today, awards are to be made to the winners of the Claude L. Matthews Valor Award and the Reddy Kilowatt Annual Report Award.

The Claude L. Matthews Valor Award was established to honor acts of devotion to duty wherein extraordinary courage has been exercised in an effort to maintain important electric service or to restore service in the shortest possible time.

I should like to strongly urge chief executives to give recognition to the courage and devotion of their employees by entering those eligible for consideration by the judges of this award.

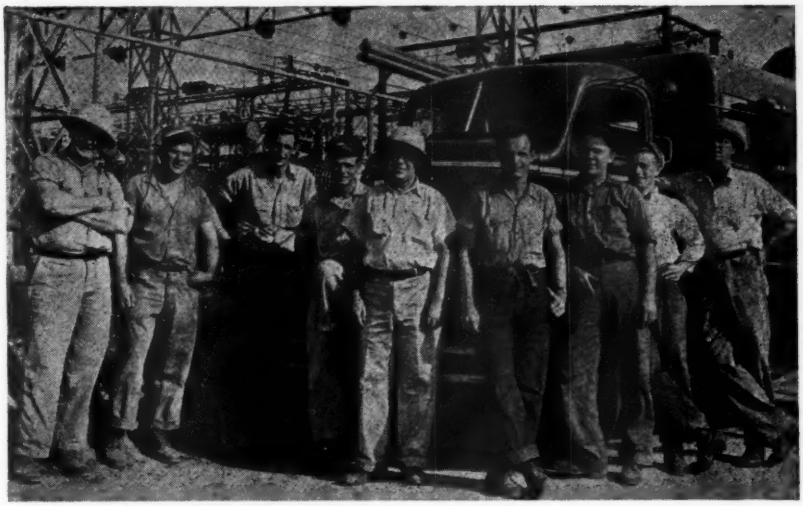
Judges of the award covering the year 1947 were: C. B. Boulet, Director of Personnel, Wisconsin Public Service Corp., Milwaukee, Wis.; H. O. Sprinkle, Manager of Operations, Monongahela Power Co., Fairmont, W. Va.; and W. R. Smith, Safety Engineer, Public Service Electric & Gas Co., Newark, N. J.

The judges have chosen as the winner a crew of eleven men of the Georgia Power and Light Company and the citation reads as follows:

"During a large, severe fire, which completely destroyed the Elberta Crate Company's mill in West Bainbridge, Georgia, a crew of 11 men averted complete loss of 7 spans of an adjacent pole line carrying a 22,000-v circuit and a 2,300-v circuit. Through their courageous action they saved the pole line, thereby preventing a lengthy loss of service to 5 towns and a suburb of Bainbridge. The crew was composed of the following men: J. A. Pollock, Tom King, E. L. Ivester, Dewitt King, L. R. Nix, Jos. J. Nichols, I. W. Parker, Tom H. Dodson, A. F. Jordan, H. O. Thomas, and R. S. Brinson.

"The lines had been de-energized and several of the poles were on fire from top to bottom when the crew arrived on the scene. They courageously volunteered to climb the burning poles despite the great heat of the adjacent burning mill, pulled up fire hose from two pumper sets and put out the pole and crossarm fires, thereby saving the lines and reducing a probable 24-hour interruption to 2 hours and 17 minutes for an extensive area of population. Their action was far beyond the reasonable demands of duty."

The award consists of a cash prize of $150 to be divided among the members of the crew, a parchment certificate citation to the group and a lapel decoration for each member. Mr. Matthews is in attendance to present the award which will be accepted for the crew by Mr. J. A. Pollock.



Members of the Georgia Power and Light Company Line Crew Who Received the Claude L. Matthews Valor Award for 1947. Left to right: Lee Roy Nix, Herbert Thomas, Tom Dodson, Robert Brinson, Tom King, Cecil Gay, Ivey Parker, Joe Nichols and E. L. Ivester. Crew members not in the picture are Dewitt King and A. F. Jordan.

REDDY KILOWATT ANNUAL REPORT CONTEST AWARDS

The Reddy Kilowatt Annual Report Award was established in 1939. For the first eight years of the contest it was open only to companies that used Reddy Kilowatt in their report. This year eligibility was enlarged to include all electric light and power companies. In commenting upon the entries, the judges stated they were impressed with the tremendous improvement in the reports. They found almost universal use of simplified accounting presentation and also an attempt at simplified language in describing the results. Because of this general excellence the task of judging was a difficult one.

The judges were: Merryle Stanley Rukeyser, economic analyst and financial writer, New York; George C. Tenney, vice president, McGraw-Hill Publishing Co. and acting editor, *Electrical World;* and Tom P. Walker, vice president, Irving Trust Co., New York.

The judges awarded first prize to the Union Electric Company of Missouri for its annual report for 1947 which so splendidly illustrates, humanizes and simplifies the company's operations to the stockholders. This company won first prize last year, also. They are to be congratulated.

The judges also awarded Honorable Mention Certificates to three other companies for their fine reports:

Puget Sound Power & Light Company, Seattle, for its president's (Frank McLaughlin) heart-to-heart talk to stockholders; its candor, directness and comprehensive character; and for its completeness not only in giving the summary of 1947 operations but in providing comparative data for 10 years and thus making it possible for the outside analysts to get a better sense of perspective.

San Diego Gas & Electric Company, for the dramatic nature of the report with its interesting illustrations throughout, including an excellent center spread in color giving the economic background on the whole territory served. This report is characterized by an analysis of the basic trends in the entire territory served.

Wisconsin Power & Light Company, Madison (Grover C. Neff, Pres.), for its simple presentation, well illustrated with charts and sketches. Also for its interesting and dramatic treatment of the source and distribution of revenue in a new pictorial form; for its excellent President's letter setting forth succinctly the 4-fold goal of a privately managed electric company. Also, for its section on employees. This company won an Honorable Mention Certificate last year as well.

The judges have asked that Special Mention Certificates be given for the outstanding reports of The Washington Water Power Company and the Utah Power and Light Company.

The Utilities and the Community

By A. C. Spurr
President, Monongahela Power Company

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"THE Utilities *and* the Community," not "The Utilities versus the Community," is the topic of this discussion. Its purpose is not to recite what we of the Monongahela Power Company have been doing but to point out the things all of us in this business might expect from a full participation in the affairs of the communities we serve.

To me, the "and" in the subject suggests a partnership. And that's the way it should be. Certainly no industry so filters through the entire life of a community as does an electric power company. Nothing new is started without our service, be it a new house, a new store, a new factory, improvements in the standard of living on a farm—all of these stem from our service, so of course we are vital to the community. And by the same token if we are to grow and expand, the community and what makes it tick are equally vital to us. Then too, our people, the meter readers, service men, appliance personnel and many others, are in constant touch with the housewife, the farmer, the industrialist. They are a part of the social, religious and civic life of a community through the church, the luncheon club, the Parent-Teachers Association and this or that civic organization.

Faith in the Community

Yes, we live in our communities and have faith in them; and as an expression of that faith we as an industry will spend, in the next few years, the largest amount of money ever spent by one industry over such a short period of time.

Recently in reviewing a study made by Brookings Institute called "Governmental Costs and Tax Levels," I found that in estimating the annual governmental expenditures over the next few years they had assumed there would be a steady expansion of the Federal government in the electric business under various guises. Then,

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as a present-day reminder of the fact that the government is really operating in our fields I noted an item calling for $400,000,000 additional for the REA, another of $4,000,000 to start work on approximately an $84,000,000 steam plant for the TVA and sundry appropriations totalling $800,000,000 for so-called flood control projects with incidental hydro which in a few years would also need steam to firm up the power.

So, I asked myself, "What's wrong with our industry that the American public seem to be so apathetic about the huge expenditures of money, to say nothing of the socialistic trend that it all implies?" We sell a product that is a little over 1 per cent of the average household budget and one of the few items that did not increase during the war. A product that represents about 2 per cent of the cost of manufacturing, and yet there seems to be a lot of approval for increased invasion of our business. When politicians in an election year add their voices to the cry for more power through government spending, they must feel it has popular approval.

Knowing that the average country editor and his small city compatriot usually have their fingers on the public pulse, we wrote about a hundred of them reciting the above facts and a few more about the industrial competition at subsidized rates and asked them "how come." We've received a lot of replies, most of which declared against "government in business." One letter struck me forcefully because this editor had often advocated the government developing the water power in our state. He wrote:

> "Until relatively recently — the past five or six years—the public utilities—the vast majority, had the world's lousiest press and deserved same because far too many public utility officials did nothing whatsoever to convince the people they were interested in doing a good job for them. There are a heluva lot of things that most big business enterprises could do for their communities that would cost them little but would turn the trend away from government in business to business in government. I hold that we had to get the government in business during the early thirties for several provable reasons. I hold that now we should definitely reverse the process for equally provable reasons."

Working for the Community

Later a telephone chat and golf game with this same editor brought forth the remark, "The reason I switched to private ownership of electricity was the job you people are doing on developing your communities. It's a better job than the government can do, and much cheaper on us taxpayers."

We have been convinced for a long while that working *for* the communities is good business because it is apparent we cannot prosper unless our communities and customers prosper first. But we were sort of pushed into doing something about it by a report

of a Federal Commission that made an exhaustive study of part of our territory with the idea of making it a junior TVA. However, the majority of the Commission had suggested that the private power company be given a chance to see what it could do in the way of developing the natural resources of the area and showing a social as well as an economic awareness of its responsibilities.

We took that report to the newspaper editors in the ten counties covered by it and in partnership with them formed a ten-county development association called the Upper Monongahela Valley Association. From our experience in working with the communities through that association came our Territorial Development Department and a program that now is operating throughout the entire area in which we serve. Through that department we are putting especial emphasis on agriculture. We now have five former county agents who are project directors in a contest known as "Farming for Better Living" (approved and helped by the Extension Service), also a housing counselor, a recreational and tourist advisor, an industrial counselor, a soil conservationist, a farm management specialist and a forester, together with a manager of the department and local representatives in four of our six operating divisions.

Community Contacts

Our people make a lot of public appearances and become associated with a great many community activities. Whether or not the people with whom they are working give any thought to their identities as power company employees, they're accepted into community circles for the job they are doing and judged by the way they do it. We long ago learned that people are not interested in our problems, but they are interested in their own, and appreciate anything that anyone else does to help them. The newspapers share that viewpoint and treat the activities of our people as legitimate news, and rightly so. These contacts have shown us very definitely that the communities' problems are our problems but our problems are not the communities'.

Speaking of other people's problems coming first, I remember attending a farm meeting and while I was waxing eloquent on some of the industry's problems a fellow in the back of the room remarked, "Wait until that so-and-so gets through and I'll tell you about some real problems." Since then our people have not spoken about the company's problems, but always about the mutual problems of the community. We are trying to make ourselves so important in the solution of other people's problems that they never think of looking to Washington for help.

Agriculture Clinic

Being small town people and not travelling about very much, we sort of got the feeling or impression that we were one of the very few companies that was doing anything in a broad community development program. Of course, we were aware that a great many companies in other industries were working with their communities and that a new breed of public relations counsel had grown up specializing in community public relations, but we knew little of what other companies in our industry were doing. This smug feeling on our part was further encouraged about a year and a half ago when 125 people representing 60 companies in the power industry from the four corners of the nation came to Fairmont for an agricultural clinic, primarily to get a first-hand view of the kind of a program we had and how it was being carried out.

Anyway, in preparation for this discussion today we decided to send out a letter and questionnaire to other companies, to find out just what they were doing about community relations and community cooperation. The results have been amazing. The thing that bothered me after going through the assembled data, and still is bothering me, is, just where are we slipping a cog? On paper the programs look good, but with all that the industry apparently is doing, we're still in the national doghouse, so either we're fumbling the ball somewhere along the line or else all this high and mighty talk I've been giving you about community ideals is wrong.

The last time I checked the figures, 83 out of 146 companies had responded to our questionnaire.

Eighty-two of them answered that they do maintain a direct and intimate relationship with community organizations. Most of them belong to the Chamber of Commerce and the civic clubs; they support the churches and schools and the social and welfare groups in their communities.

Only 29 companies, however, answered that they had departments dealing exclusively with area development. And, in answer to the question, "Do you have a prepared program covering policy, activity and job responsibility," the replies were a bit discouraging. Only 17 companies had defined policies of community development; 20 had programs of activity to be followed; and 19 had prepared statements of responsibility of those engaged in development activities.

There probably are a lot of conclusions the statisticians can reach from those figures. They tell me only that from 15 to 29 of the companies represented here today are doing more than letting their community relations follow the course of least resistance. Seventeen companies have said they have definitely formed policies of community development; 29 have departments dealing with the development of their areas.

One can go into any section of the country and find it definitely and impressively demonstrated that the electric power industry is playing a vital role in community and territorial development, so impressive to me that I still can't help but wonder why more isn't heard about what's being done. If the programs impress one who has been preaching this sort of thing, they should be little short of amazing to those who have given the general subject only passing thought.

Some Community Programs

Various excellent programs with which we became acquainted through our survey should be mentioned briefly: South Carolina Power, with a long range program aimed at industry, agriculture and tourist trade, and bolstering the public attitude . . . its "Progress Program" is worth looking into . . . strictly at the community level . . . there's Georgia Power, doing a grand community job, particularly through its Better Home Towns Program and its drive for better tourist facilities . . . Florida Power and Light has done a swell job in development of home products, among them sweet potatoes and citrus waste, through chemurgy, and it has done a lot for its west coast communities by ballyhooing the spring and summer vaca-

tion possibilities of the area . . . best proof that Alabama Power is carrying on a broad program is its winning of the E.E.I.'s 1947 Rural Electrification Award . . . Alabama has a staff of 23 people whose sole duty it is to work with the farmers and rural people . . . they've learned, too, as we have learned, that the best way to get the job done is to work through community leadership and through the recognized agricultural, civic and governmental development groups.

The power company, to be of help, must first of all have the friendship and confidence of the people it wants to help. To get that we've got to earn it. We can't overlook the fact that we're not the only ones who are interested in community development. Whereas our interest may be comparatively new, experts and specialists have been working on community, farm and industrial programs for a good many years. We have learned the minute the power company seeks to be the "big frog" in the pond it invites a negative reaction; that it is trying to be the whole show in the field where it is just an amateur. The farmer and the merchant, as well as our agricultural agencies and our chambers of commerce, know that a lot of time, effort and thought has been given to development without our leadership, and it is only natural that resentment would crop up. Actually, our job is to implement their programs with services we are particularly fitted to render—electric power, widespread area coverage and promotion.

Non-Rural Communities

The same holds true in non-rural community development. It may be that your company will do all the legwork, make all the contacts, and actually do the selling job on a new industry coming into the area, but you'll get a lot farther if you let your community leadership hold the spotlight. The public, even that part which likes us, still is suspicious of bigness in business and industry, and for that reason it is best to let the people of a community be a part of development activities and feel they are doing it their own way. Of course, where there is real community leadership to do a job, then by all means it should be encouraged. It has been our custom to get the newspaper people together first, review with them the particular problems arising, propose corrective measures and invite their opinions and criticisms. Then we can proceed, assured of their interest and support. Let me repeat for the sake of emphasis, the problems of the community are our problems but our problems are not the community's problems.

But back to what other companies are doing:

Texas Power and Light has the commendable policy of encouraging its employees to participate in community activities . . . it maintains an engineering service to help industry . . . makes surveys, aids in the promotion of natural resources through booklets and can claim priority as a pioneer in development of the textile industry, dairying, frozen food locker plants and soil conservation in its area . . . Virginia Electric and Power believes that "Good public relations must be earned" and is backing up that policy with sound industrial and agricultural programs.

Public Power in the South

In case you get the impression that I'm calling the roll of southern states, it might be well to stop and consider why. They're the states where most of the public power pressure has been applied. The South, because of its many low-income areas, was the logical starting place for the economic medicine men, and the zip which their medicine gave to the Tennessee Valley is proving a strong influence for expanded use of the hypodermic. The fact that free enterprise in the South is fighting for its life today should be warning enough to other areas to guard against incidents that could give the public power boys an excuse to move in.

At the other end of the country four companies in the northwest have gone together in a national advertising program that is doing a great deal for the industry and for free enterprise generally. They are Puget Sound Power and Light, Northwestern Electric, Pacific Power and Light, and Washington Water Power.

In the field of companies that are carrying on intelligent national advertising programs, good examples are Ohio Power, Pacific Gas and Electric, Wisconsin Power & Light, Wisconsin Public Service, Cincinnati Gas & Electric, Cleveland Electric Illuminating Company and Commonwealth Edison—all of them rendering, through their advertising—a distinctive service to their own territories and to the nation.

A fine example of cooperative effort by a group of companies is the effective territorial information department of the New England Power Service Company.

It would be amiss here not to mention also the excellent program of community service that is being carried on by Idaho Power, particularly in the field of chemurgy. And Idaho, like Puget Power and others of the Northwest, is fighting the battle for its existence.

I suppose that back in West Virginia we've been fortunate in that we haven't been big enough to attract the serious attention of the government-in-business boys, and I'm not going to brag, but I can say this about our own program. We're trying everything in the book—agriculture, industry, housing, recreation, conservation, forestry. We have people out in the field who talk to the farmer on a grass roots basis and our meter readers in the urban areas are taught to talk to the housewife about her service problems. He carries the tools to make minor appliance repairs, and if Mrs. Housewife shows an inclination to talk about a new home or a community program he knows where she can get the information she may need on those subjects. I hope I'm not being too optimistic when I say we're getting out of the public doghouse by degrees.

Political Bugaboo

One of the toughest nuts we have to crack in our community relations is that old bugaboo, politics. Power is used as a political football on the slightest provocation. It shouldn't be that way. There's no more natural connection between politics and the generation and distribution of electricity than there is between politics and the mining of coal, the selling of neckties or the restaurant business. But there it is.

Perhaps there have been occasions on which individual companies of our industry have permitted themselves to become voluntarily involved; certainly the pressing question of municipal ownership of electric facilities has invited the attention of people to the business of generating and selling electricity. But under any circumstances,

even direct involvement in a political issue does not mean that we have to stoop to playing politics the rough and tumble way, and the farther we can stay away from partisan politics the better off we're going to be. Get tarred with the political stick and you're fair game for any and all politicians. The reason is simple. We are big, the biggest private interest in most of our communities. The American public still has a soft heart for the underdog, and most any politician sounding the catch phrases of "cheap power" and "water power belongs to the public," can manufacture a "pet devil" out of the utility that is inclined to quarrel with him, even though the company can boast an excellent record of achievement in public service and low rates.

Municipal Ownership

I can cite a specific instance of one company that played politics and paid heavily for its participation until it learned the easier approach. It fought the issue of municipal ownership through four municipal elections. The issue wasn't always a direct one, but an implied one through candidates who were for or against municipal ownership.

Then the company got a new president. He immediately refused to put any more money into the fight but asked that a civic meeting be arranged, as large an attendance of the public as possible be promoted and that he be given the opportunity of talking to the group. The turnout was large and the company president laid his cards on the table. A survey had been made of the community. It showed that the community's economy was suffering a steady decline. He said to the group, "you've seen the problems that your community must face; do you think you can lick them through municipal ownership?" He went on to outline what the power company could do to help lick those problems and offered that help if the community really was inclined to do something about the situation.

From that time on, municipal ownership ceased to be a political issue. The town is growing steadily, and very recently acquired four new and important industries. The company purchased the street lighting system and got rid of the outmoded equipment that had retarded electric service in the community. There's a friendly relationship between the company and the community—a triumph for the policy of cooperation.

In case you may be inclined to pooh-pooh the idea that public power isn't a political issue, stop and consider a moment that Governor Tom Dewey, on his recent visit to the Northwest, chose Portland, Oregon, as the right place to enunciate his views in favor of more valley authorities and the further projection of the Federal government into the electric power field. Likewise it was in Portland, Oregon, in an area of vast potential water power and the most lucrative spot for the launching of a public power empire, that the late Franklin D. Roosevelt first laid down his power policy. The only conclusion can be that public power very definitely is political regardless of the party—an issue that has been and will continue to be played to its fullest advantage in the never-ending battle for public favor.

Many of us can take a leaf from the record book of TVA, which has done a fine job of steering clear of local politics, even though TVA is a political creation. And, to further emphasize that electric rates are primarily a political issue, let's consider what a recent public opinion survey in the TVA area brought forth. It showed strong endorsement of TVA, and first in the minds of those interviewed in the poll were the things that TVA has done for their communities. Low rates were a fourth place consideration of a people to whom rates should be most important, certainly more important than in our more industrialized areas where they have been used very successfully as political issues. It is the only weapon available to the politician fighting a politically-minded power company, and it works.

Get Out of Politics

How can we get the generation and distribution of electric power out of politics?

We can start with a sincere effort on our own part to get out of politics and stay out.

We can keep out by doing the kind of a job that the public we serve expects of us—by making it clear through our every-day conduct that our aim in life is to be good citizens, to sell electric power, to serve the public to the best of our ability and to do everything we can to help our communities know and enjoy the high standards of living in which electricity plays so vital a part.

Today we have the story of the modern approach to area and community development as represented by the Middle South development, or, as I would like to call it, the American Way Authority. Middle South is a new program, financed and sponsored by the four electric power companies operating in Mississippi, Louisiana and Arkansas. Our good friend Ham Moses of Arkansas Power and Light, speaking at the dedication of the program in April, explained it this way:

> "We are doing cooperatively, and as a region, just what each company and each state has been doing for 25 years. We are collectively recognizing that we are citizens and community builders first, and electric utilities next."

Dynamic Leadership

Mr. Moses offered another thought on that occasion—one that goes beyond the things I've talked about here today. "Industry," he said, "faces the most serious challenge ever faced in its history. This challenge comes, not from power-hungry labor leaders, not from Communist fronts rampant in our country, not from pressure groups, but straight from the American people. It's a challenge to American business to provide a new dynamic leadership for a restless and a perplexed people. It's a plea from the composite heart of the common man that private enterprise—the American way of life—help restore a nation's faith in itself. It's the fond hope of millions that free competitive industry will continue to produce more goods, for more people, and at lower prices, than any other system yet devised by man . . . our people today are tired of regimentation, centralization, and concentration and boot-strap economy. They want business to prove that our way of life is better than any other system in the world."

No doubt you've already seen something in the papers about the Middle South. You're going to hear more, because much of its program will be built around advertising of the three-state area. The four power companies involved are prepared to spend a lot of money in the effort.

Agriculture being the field chiefly in

need of development in our territory, we're making the approach on the premise that haystacks are as important as smokestacks. Once we prove that point we will have an agricultural industry that knows much better standards of living, at the same time finding the expanded use of electricity directly related to the new and more enjoyable ways of farm living.

Soil Conservation Programs

Our whole industry should take soil and water conservation seriously. It applies to every area.

In one of our watersheds, the West Fork River Valley, we had a flood and water supply problem. Seeking a sound approach, we brought in through the valley association the same engineer who had designed the Miami and Muskingum water conservancy programs in Ohio. He pointed out to us that placing a dam at the point where it would impound the most water and control floods downstream would not solve the problem. The reservoir back of the dam would destroy valuable farm land and more than 50 per cent of the annual flood damage would continue in the areas upstream behind the dam. Instead, he recommended check dams and conservation practices farther back in the head streams—the principle of holding the raindrop where it falls. By that practice, the water would better serve the farm and contribute to better farm income. It would guarantee regular water supply. And it would eliminate the necessity of high and expensive dams.

That engineer's report, which is almost identical to the recommendations subsequently made to Congress by the U. S. Army Engineers, started us into the field of conservation and today we employ a full-time soil and water conservationist. One of the projects on which he is working today is the development of localized watershed areas, organizing the farmers of those watersheds, or communities, to cooperate in a broad program of conservation practices that will hold the water on the land and stop the erosion that has been gradually washing away the farmer's facilities for making money. That program is hitting at the community level.

Don't get the idea that Middle South, that is, the American Way Authority, is throwing a lot of money into saving the American Way, without thought to getting a return on it. That wouldn't be the American Way. Ham Moses and his colleagues of the Middle South are motivated by the same principles that have prompted us of Monongahela Power to make a comparatively large investment in our territorial development program. Everyone in our territorial development department is there because we want to make money. Ours is not a philanthropic or altruistic move; nor a public relations stunt but plain good business; sometimes we call it "enlightened selfishness." We've been pretty frank about our policy, and that frankness hasn't hurt us. We admit we're in community development and territorial development to make money. We can't make money unless the people we are serving make money, so it becomes good business on our part to do whatever we can to help them get it first.

Fairmont's Coal Bureau

Here's a specific example of how that works. The Upper Monongahela Valley Association, was first sponsored as a vehicle for meeting the government's challenge to show what private enterprise could do. Through that association we organized what is known as the Fairmont Coal Bureau. The Fairmont field had been, and is again, one of our richest soft coal fields. But, it spent a good many years wrestling with the problem of what to do with slack. Slack coal was a drug on the market. It could be utilized as an industrial fuel but special type boilers were required to burn it. Operators were shipping and selling coal on a price basis and slack that couldn't be sold had a depressing effect in determining the price at which other sizes of coal should be sold. The slack still had to be mined with the other coal.

Slack Coal Production

The Bureau was formed as a fuel engineering service. Most of the important operators in the field joined and are maintaining the Bureau. The Bureau itself, through its engineers, has sold the idea of boiler installations that will use Fairmont slack as well as other types and sizes of coal. Because that type is the cheapest grade of coal, it means a big saving to consumers, and, with proper equipment it has been proved very efficient. In our industry particularly, it is the most economic and yet efficient fuel we can use. Through the Bureau's efforts, nearly 800 new boiler installations have been made, designed to burn our coal. They have an estimated annual coal consumption of 32 million tons of slack coal. It is estimated that the mines of the Fairmont field could reasonably plan to increase production at the rate of three million tons a year for the next five years, to meet the demands of this new market.

Community Relations Program

That means a lot more business for us, since mines are among our biggest industrial consumers. And the miners, who have assurance now of steady employment, are good residential customers.

A bit of sound advice from Philip Lesly, vice president of the Chicago public relations firm of Harry Coleman & Company, appearing recently in the *Public Relations Journal,* had this to say about the proper ingredients for a community relations program:

> "Developing good community relations involves two basic things: keeping the community informed about the company, and making the company a good citizen of the community, aware of its responsibilities to the other citizens and eager to contribute to the general welfare. This calls for active participation in community affairs and public service. The company must avoid giving the impression that it is the unapproachable giant behind a high fence; instead it should make itself a friendly and helpful neighbor."

Follow that formula and a lot of us will find that we're back in the good graces of the American public.

We have strong faith in the communities that we are privileged to serve, and as evidence of that faith we have launched the greatest expansion program that any industry ever has engaged in. By the same token we have innate pride in those communities and a sincere desire to see them grow and prosper. What better expression of faith and pride is there, then, than working with them as a partner, lending our facilities in the fullest measure to serve the individual and community good? It's good for the community, it is good for the whole American system of living and it is good for us.

The Utilities' Stake In Soil Conservation

By Dr. H. H. Bennett

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An Address before the Sixteenth Annual Convention of the Edison Electric Institute, Atlantic City, N. J., June 3, 1948

IT IS highly encouraging that the subject of soil conservation has been included in this program. It means that our utilities throughout the country have sensed the intimate relationship that productive land has to all human affairs and progress, everywhere.

Everybody is or should be basically concerned with the permanency of our productive land, because it is the source of our food, most of our clothing, all of our wood supplies, and an increasing number of the raw products of industry. More than that, of all the many problems facing the world today, the toughest of them is: How to feed a rapidly increasing population from a limited and diminishing supply of productive soil.

The Brutal Truth

The time has come to speak out with the brutal truth about the land problem in the United States and around the world. First, there must be stressed the great need for determined leadership of the kind that really understands the utter dependence of all mankind on the land, sees the practical possibility of improving the land and increasing its productiveness through conservation and senses the advantages of such increased production to everybody.

Another aspect of the hard truth—and not nearly enough people understand this—is that population has either caught up with the food-producing possibilities of a vast area of the earth's surface or is moving rapidly in that direction. In other words, there is not enough land for the world's population under existing methods of food distribution and improper use and protection of the land.

This is not intended to scare people. What is to be hoped will come from pointing out these dislocations and weak links in our world setup is an increased sense of individual and public responsibility toward the need for taking better care of what land is left.

DR. BENNETT

Most of the people of the world are undernourished today. They seldom have enough to eat of any kind of food, nutritious or otherwise. This is not just an emergency situation brought on by the recent war. Millions in Asia and many of those in North Africa and parts of Europe were hungry long before World War II broke out in 1939. Famine had become almost periodic in some parts of the world.

And, as a matter of course, hunger is sure to remain with us unless something can be done to increase the food supply. The whole, disagreeable truth is the way we've been going, we are running out of productive land—wasting it rapidly and unnecessarily. While this has been going on, some people have assumed that the eroded soil which has been scattered irrecoverably over the floors of the oceans can be readily made over again from the raw subsoil left in our fields. It would be comforting if we could. But man has not learned how. He can improve erosion-exposed subsoil, of course, but the top layer that's gone can't be built back and can't be hauled back from the oceans.

In the meantime, hungry people are dissatisfied people; they are potential hazards of strife, locally and internationally. The world seems too small today for us to live in peace with a few of its people well fed and the rest hungry. And there is little doubt but that these unpleasant realities contribute to the difficulties we are confronted with and the gravity of the decisions that must be made at home and in our international relations. Until the food problem is solved, it is highly unlikely that we can achieve any lasting solution of a number of other momentous problems. There must be development and maintenance—conservation—of the land from which people live, get their food, raiment, and other necessities.

That is why a long-range program of soil and water conservation is one of the most urgent needs facing our civilization.

More Food With Better Care of Land

Unrest and difficult problems are likely to be with us until every helpful adjustment of man to land is made. Such adjustment can be effectively made regionally or world-wide only through proper use and conservation of our food-producing land.

There is but one way to provide more food—even to maintain our present food production—and that is to take care of the productive land we have left with such efficiency as will make it produce more. Fortunately, we can do this.

In the short space of two decades, during which our present national program of soil conservation has been under way here in the United States, it has been shown definitely that we not only can use the land without impoverishing or ruining it, but we can so treat it as to materially increase its productive capacity in most instances and keep it productive by the use of proved practical soil and water conservation measures—use of the knowledge we already have.

Never before in the history of mankind has every acre of good land, as well as land that can be made productive with improved methods, been so

important to the present and future welfare of all people. According to the investigations of the Soil Conservation Service*, there are left in the world only about four billion acres of immediately arable land, as nearly as we have been able to determine from information now available. That is all there is to produce the food needed by the world's 2¼ billion people. And it is not all good lands; a great deal of it is of only medium quality, or is poor. And the number of people on earth is said to be increasing at the rate of about 20 million annually.

This means, world-wide, that we have less than 2 acres of productive land per person at present. And even this small per capita acreage is shrinking. It is shrinking because, as already noted, the world's population is growing while the area of productive land is becoming less. Land is becoming scarcer because we are still impoverishing or ruining it for further cultivation in all parts of the world. Even here in the United States we are still permitting land to be ruined for any further practical cultivation, mainly because of excessive erosion by wind and water, at an average annual rate of around 500,000 acres.

A Limited Supply of Land

Two acres of productive land is barely enough to furnish a minimum adequate diet for one person. In fact, most nutritionists seem to feel that about 2½ acres of reasonably productive cultivable land are needed to furnish a minimum nutritional diet for each person. Clearly, then, we cannot afford to waste any more land; we are going to be hard pressed to get along even though we may be able to increase the productivity of all the 4 billion acres the world now has.

And it must be remembered that this land is not distributed equally among all the peoples of the world. Some nations have less than half an acre per person, and not all of this is good land.

There probably are some millions of acres of presently unproductive land in the world that might be brought into productive use. The precise extent is not known, because surveys have not been made. Here and there are some virgin tropical lands that could be used to produce more food, as in the Amazon Basin, especially along the upper portions of some of its tributaries like the Napo. There also are still some areas in the temperate zones that could be brought into production by clearing, drainage, irrigation, or other means. Even when we consider all these, however, we still do not arrive at any surplus of readily usable productive land.

* Bennett, H. H. "The Coming Technological Revolution on the Land," *Science*, Vol. 105, January, 1947.

United States Better Off, But Not Yet Safeguarded

The world food situation will get much worse unless we make up our minds to move rapidly ahead with effective soil conservation, unfettered by fear, lack of understanding, and incapacity for making decisions. As never before, leadership is needed—fearless, understanding, determined leadership that will move ahead before it is too late.

It is not going to improve automatically or with short-cuts and panaceas. Industry is continually calling for more and more of the raw products of the soil. So, the duty of land goes on increasing, while the supply continues to decrease.

The United States is somewhat better off than most nations from the standpoint of its area of productive land, chiefly because of its rich heritage of good, readily usable land. But there is little cause for complacency; for we, too, have come all too close to the danger line as the result of careless use of our land. Over the past 150 years—chiefly over the last 100 years—we have allowed something like half of our farmland to be damaged by erosion. Millions of acres have been ruined for any further immediate cultivation—around a hundred million acres of cropland alone, not counting a tremendous acreage of damaged range land. Other millions of acres of cropland have been damaged and continue to be damaged by moderate to serious erosion. Nearly a third of our original supply of topsoil was allowed to wash or blow away, while we thoughtlessly pursued a policy of plow up, wear out, and move on. And the wastage is not yet under control by any means.

Around 85 per cent of the farmland that is still subject to impoverishing erosion is yet without the protection of effective, adaptable, acre-by-acre conservation treatment—the only kind of treatment that can possibly give us full and permanent protection of our remaining productive land. Because of past thriftless use, we have left in the United States today only about 460 million acres of high grade cropland, as well as can be determined. That is slightly more, on the basis of present population, than 3 acres per person. Unfortunately, all but about 100 million acres of this 460 million acres is, without adequate safeguards, subject to erosion, waterlogging, salt accumulation, or other forms of soil impoverishment; and from 80 to 100 million acres of it needs clearing, drainage, irrigation, or other improvements to make it productive.

Around a fourth of the cropland in this country is being damaged at a critically rapid rate by erosion. This is an area estimated at something like 115 million acres of highly vulnerable cropland, much of which will be permanently damaged and some ruined for further cultivation every year it is cropped without protection. It ought to be adequately protected—and can be—during the next 10 to 15 years.

Still another large area of cropland, estimated at some 115 to 120 million acres, should, for the same reason, receive adequate protection not later than about 1970. This latter type of land is not being damaged so rapidly as the other class, but we cannot afford to let it run along unattended. Nor can we afford to neglect the additional millions of acres on which erosion is beginning or will begin any time it is carelessly used.

A Great Soil Conservation Program Is Under Way

Fortunately, as already indicated, the Soil Conservation Service has acquired the basic knowledge necessary to stop deterioration on most types of agricultural land found throughout the world. Not only do we know how to check accelerated erosion, but we also know how to increase the productivity of most lands. Since 1929, the Soil Conservation Service and its parent agencies have been conducting experiments on soil and water conservation, and since 1933 have been applying soil and water conservation to farmlands throughout the country with highly effective action programs. This work is being done by farmers themselves, with the technical assistance of the Soil Conservation Service, through local units of government called soil conservation districts.

There are now nearly two thousand of these soil conservation districts. They cover more than a billion acres and include more than three-fourths of the farms of the nation. During the last fiscal year, farmers and ranchers in these districts actually applied complete conservation treatment to more than 20 million acres. This treatment included the making of all needed changes in land use and the application of those conservation practices needed to maintain the productivity of the land permanently.

This kind of effective soil conservation is being done through conservation planning and treatment of whole farms, by the farmers and the soil conservationists working cooperatively out of the land—field by field, in every pasture and woodlot, in every gully, and over every acre of idle land. Through such a system of sound conservation farming, all of our farmland can be permanently safeguarded. Moreover, this means a diversified type of production that fits the needs of the land, gives people more food through increased per-acre production. Also, it is sufficiently flexible to be responsive to changing markets or other demands, such as the present food-producing emergency. And, too, it gives the basis for the permanent maintainence of the soil to support a permanent agriculture for a permanent nation. It is our best insurance for the future and for the guarantee of farm plant maintenance.

Local Soil Conservation Districts

This program of proved soundness is moving forward with gratifying progress through soil conservation districts. The districts are local units of state government and the most effective device ever conceived for carrying out conservation treatment of the land in a practical, effective, wholly democratic way.

We now have in the Soil Conservation Service the first and by far the largest group of trained, expert soil conservation technicians in the world. And, what is also important, we have a constantly growing understanding of the importance of positive soil conservation among the leaders and thinking people in virtually every part of our society—educational and religious, agricultural, business, and professional.

Important progress has been made during the past few years in safeguarding the future of our land and in increasing its productivity. But we still have a long way to go. Only about 15 per cent of the job has been completed. Even so, the United States is far ahead of all other nations of the world in recognizing the soil erosion problem and doing something about it. Several other nations are beginning, patterning their programs after the soil conservation program of this country. And more countries are using the research data we have accumulated on soil erosion and its control. But many countries—some of the most destitute—have still done little or nothing to conserve their remaining productive land, or to increase its productivity. These conditions should be remedied now, for nothing is to be gained and a great deal is to be lost by waiting for the next generation to do it. Not only must we speed up our conservation program here in the United States, but we must, through some means, induce other peoples of the world to do likewise, for this, like most of the difficult problems civilization faces today, is a world problem, not just a local problem.

Utilities' Interest Increasing

In one way or another soil conservation relates to all human activities. Both locally and nationally, it beneficially affects the production of food, fibers, wood, and various raw products of industry, as well as income, the tax base, and trade. There should always be a healthy interest in our national program of scientifically-applied soil conservation on the part of everybody.

Recently, much helpful interest in soil conservation has been shown by a great many, and an increasing number, of our industries, our utilities, our railroads, manufacturers, bankers, educational institutions, and so on. This interest is being shown by way of useful publications dealing with the details of soil conservation and its application to the land. Essay prizes are being offered and rewards for soil conservation work are being given by a variety of institutions and industries, as well as soil conservation districts. All of this is highly creditable and most helpful. It is encouraging evidence of our increasing interest, nationwide, in the welfare of the only resource we possess without which people cannot get along here on earth —that is, our productive land.

When the world was younger and there were fewer people on earth, man had only simple desires compared with what people demand in these times. So, there was no land problem in the sense of scarcity. There was plenty of land everywhere, then. And people didn't have to live where water was not available. Then, too, the world had not grown nearly so small as it is today, with our modern facilities of transportation and communication.

These and other things have brought about enormous changes which, when combined with our greatly increased population, and our wasteful methods of land use, have put such a strain on the soil that all of us are going to have to fight from now on to the end of time to keep up our agricultural production.

Our American utilities are showing increasing interest in soil and water conservation, flood control, and in the prevention of sedimentation of our reservoirs and drainage and irrigation ditches. Among other things, utilities develop and handle water power, an activitity that is inseparately tied in with the problem of silt prevention. They, like the farmer and the flood control engineer, are deeply interested in holding as much of the rain as possible where it falls, and in controlling the excess—the runoff—all the way down to the oceans.

Watershed Basis

The mere reference to flood and silt prevention leads me to express my deep regret that we are not permitted to go ahead with our original plan for attacking the erosion problem, floods, and silting on a watershed basis. Objection to the watershed plan of procedure was raised by those who felt the job could be done better on the county unit basis. In some localities the job is being done on the watershed basis, and the results are very satisfactory. That's the natural way to manage water. It is the way to build and maintain reservoirs for water conservation and it is also the best way to set up irrigation projects. Nature had nothing to do with the establishment of township, county, and state boundaries; but it had everything to do with the establishment of every watershed boundary on earth. And whoever did the planning was a very wise planner, indeed. As a matter of fact, the United States—and most nations—is a composite of

watersheds, big watersheds and little ones, all set up by Nature. All governmental units, on the other hand, represent our conception of the way to carry on our business and governmental affairs.

So, unfortunately, we were not permitted in the soil conservation job to operate on the watershed basis everywhere.

Flood Control

In our flood control operations, the Soil Conservation Service devotes its efforts largely to lands drained by small streams—the "little waters" of the nation. We have found that the combined damage produced by floods along these lesser streams that drain the uplands—the fields and pastures, the woodlands and all the hills—and find their way into the trunk streams, exceeds the flood damage along the main channels, at least on many of the trunk streams. This fact has been ascertained through our detailed flood control land and water surveys, as well as through our field experience.

The Soil Conservation Service is cooperating with the Forest Service and with the Army Engineers under the Omnibus Flood Control Act (Public Law No. 738—74th Congress), and also with soil conservation districts and other agencies, in a coordinated attack of flood prevention and flood control. Our Service operates principally in those areas where farming is important; the Forest Service carries on its operations principally within the limits of national forests, most of which are located in mountainous and hilly regions. The flood control activities of these two agencies are involved, primarily, with prevention operations. The Army Engineers, with whose work the operations of the Soil Conservation Service and the Forest Service are coordinated, are engaged in the field of control operations. They work chiefly along the trunk streams where it is necessary to control floods. This calls for the use of major engineering operations, such as the building of levees, revetments, reservoirs, and floodways.

Cooperation, recently effected between these agencies, is working smoothly. I think this arrangement is going to get results, but it's going to take time. Floods are violent and far-reaching in their depredations.

Everybody seems to be in favor of soil conservation work and much money has to be spent in clearing up muddy water for drinking and other purposes. There is, occasionally, a considerable outcry about building reservoirs where much rich alluvial land is covered by water. Good land does, unfortunately, get covered up. As to what is the best thing to do will depend very much on the particular situation—what does the greatest good for the most people.

It is possible, too, that people sometimes forget that some of our great cities were built on the very banks of streams in early days when floods were not so serious as they have become since the advent of agriculture in America. The best way to handle floods along these streams is through the upstream type of work carried on by the Soil Conservation Service and the Forest Service, in cooperation with those who conduct the major downstream engineering operations.

The only practical way for the prevention of siltation is by carrying out a good job of soil conservation work that will keep the soil in the fields and out of stream channels, reservoirs, and ditches.

Utilities have reason to be particularly concerned with the rapid siltation of our reservoirs. About one-third of the nation's electrical power is generated by hydroelectric installations. Silt is seriously reducing the capacity of many storage reservoirs to maintain a high rate of firm power production.

The Soil Conservation Service has made surveys of a number of power reservoirs to find how fast they are losing their storage capacity. We have found, for example, that the High Rock Reservoir on the Yadkin River in North Carolina, a project owned by the Aluminum Company of America, lost nearly 5 per cent of its capacity before it was 8 years old. The Lloyd Shoals Reservoir, in Georgia, owned by the Georgia Power Company, lost more than 12 per cent of its capacity before it was 25 years old. Lake Taneycomo on the White River, Missouri, owned by the Empire District Electric Company, lost 46 per cent of its capacity in a little over 22 years.

Power Lost Through Silting

In 1941, the Southeast suffered a severe drought just when power was in critical demand to support a rapidly expanding war-production industry. At that time all of the steam plants as well as the hydro plants were in continuous operation. During less than 3 months of drought, the Service estimated that 90 million kilowatthours of electricity were lost in four Southeastern States solely as the result of silting in the power reservoirs. The water that could have been stored in the reservoirs the preceding spring in the space occupied by the silt caused this relatively large loss in power. At the national average sale price of electricity that year, this represented a gross loss to public utilities of $1,700,000.

Utilities not only have a vital stake in the broad public aspects of soil conservation, but they have a direct financial interest in the control of erosion on the watersheds supplying the runoff that fills the hundreds of hydroelectric power reservoirs throughout the country.

Sixteenth Annual E.E.I. Convention Spurs Industry's Confidence in Future

(*Continued from page* 172)

sively competitive, remain in the low range for top quality men, Mr. Breckenridge pointed out.

Interesting trends in utility employment include increased summer employment of undergraduates, and increases in the number of companies organizing cadet training courses and contacting colleges. A "seller's market" in engineering graduates is expected to continue for the next two years, in spite of the increased number of men being graduated each year.

George B. M. Robertson of the Philadelphia Electric Company outlined proposed changes in the procedure of the National Fire Protection Association in drafting the National Electric Code. The new procedure provides for public discussion of each proposed new code by a broadened Electrical Section of NFPA. Any individual or company that is an NFPA member can participate.

Leadership In Accident Prevention

By A. T. O'Neill
President, Buffalo Niagara Electric Corp.

An Address before the Sixteenth Annual Convention of the Edison Electric Institute, Atlantic City, N. J., June 3, 1948

PRESIDENT Oakes has pointed the way for this discussion by his excellent letter of February 6, 1948 addressed to the chief executives of the member companies. In this letter, he pointed out that injuries had been trending upward and called for intensified efforts to check and reverse the trend. This, of course, is helpful, but standing alone, it is not enough. You and I, as leaders of our own companies, must get into this problem and work out a solution at the top.

A Look At the Record

During the three days we are meeting here in Atlantic City for this Sixteenth E.E.I. Convention, if general accident averages hold, at least one employee of this industry will have lost his life while on the job and more than sixty others will have suffered disabling injuries of greater or less severity. Projecting this figure forward, it means that during 1948, between 100 and 200 lives will have been lost and more than 7,000 employees, some of them yours and some of them mine, will have been disabled either temporarily or permanently. Based on this industry's accident record over the past years, what I have just said will become an accomplished fact unless you and I do more about it than we have in the past.

Considering the number of employees in this industry and the number of manhours of labor performed, you might well ask the question, is the record a bad one? Twenty years ago, there would have been reported between two and three times as many deaths and disabling injuries as are now reported. Great progress, notable progress, grand progress has been made.

But the fact is, that the progress has been made between 1924 and 1934, and since 1934 the disabling injury rate has been trending upward until it now stands at a 16-year high. The fatality rate has generally been on a downward trend, but in 1947 it shot upward again and we find ourselves back again where we were in 1938 and 1939. The fatality rate increased 50 per cent in 1947.

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Fig. 1 illustrates what has been happening. The upper curve is lost time accidents per 100 employees and the lower curve is fatalities per 1000 employees. Here, then, we have the stage setting. Here then we have the problem sharply defined. Here then we see the job before us if we are to prevent this curve from climbing back to the level of twenty years ago.

There is no point in being alarmists, but as leaders of this industry and as men of responsible positions, handling the very lives, happiness and security of our employees, to say nothing of the financial end of this accident and damage situation, we should realize

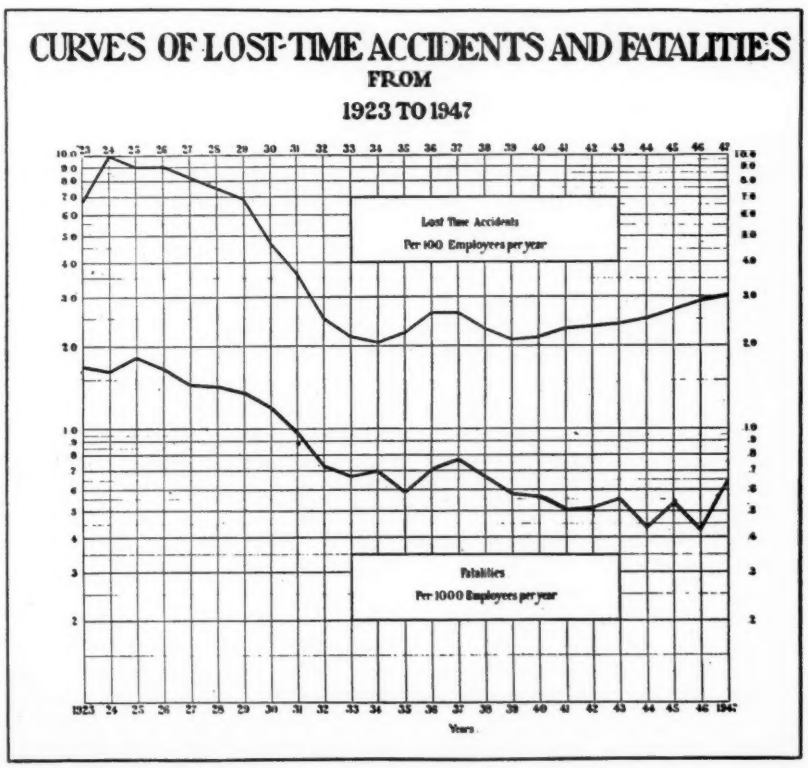


Fig. 1

that all is not serene. There is an old adage that "everybody's business is nobody's business." It is an old one but a true one, and when top management forgets this whole question of lives and safety and delegates it wholly to the operating forces below the range of top management, the adage holds true and the question becomes nobody's business.

Accident injuries and death are unpleasant things to contemplate and in addition to the personal suffering and grief they bring about, they are, to be brutally frank, costly propositions to any company. They are costing the industry millions of dollars each year and they are costing employees additional millions by way of reduced earning power and expenses not covered by compensation payments. These are red ink entries clear across the books.

It is unnecessary, therefore, to delve deeper into the picture. As experienced operating men, you realize the problem and its serious effects. The problem now is what can be done about it.

Leadership—Key to Prevention

"Shot in the arm" leadership will not do. Too often the tendency has been "to let a sleeping dog lie" and as long as the organization is functioning satisfactorily without too much safety effort we are prone, busy as we are, to let things drift until a serious accident occurs. Then a great fuss is raised. Everyone concentrates on the slogan, "This thing has got to stop," and then an intensive investigation is begun and you find that the accident just didn't happen.

When you come to look into the occurrence and really investigate its background, you find that it is but the outcropping of a careless way of doing things and that it is but the end result of a toleration of careless methods. The point, therefore, is that we ought to be on the lookout for the things that lead up to this serious occurrence. Make it a practice of having sent to your desk each week, and certainly no longer than each second week, a list of the accidents occurring in the interim, stressing, not severity, but the hazard and the violation, if any, involved in each particular instance.

In other words, national figures clearly indicate that about one out of each six electrical contact accidents involves a fatality. Therefore, it follows that if your weekly or bi-weekly review indicates that there has been a contact burn involved, even so slight as to blister the tip of the finger, then it is time that top management get on the move to see the reason for violations that lead to such accidents. This type of hazard and possible violation are used only as a type. This theory and scheme ought to be followed across the board, but in this connection, we ought to keep in mind that we are engaged in dealing with one of the extra-hazardous occupations and if we keep that firmly in our minds, then we ought to use extra care and caution commensurate with the extra-hazardous occupation.

My observation and experience in accident prevention dates from the time when my direct responsibilities were in accident prevention and claims work in my own company. There is no substitute for sustained active participation by the heads of the organization. If we want a safe organization badly enough, then we ought to be able to keep at it on a day by day basis. There is a chain of responsibility that binds you and me closer than is comfortable to these deaths and injuries if we are to face the issue squarely.

Let me trace that responsibility from top to bottom. I shall use my own company as an example because I am more familiar with what we have done. I have no doubts that some of you could furnish examples as good or better than the one I shall describe.

What One Company Did About It

The Buffalo Niagara Electric Corporation and its subsidiary, The Niagara Falls Power Company, employ substantially 3,450 people. We operate at Niagara Falls the largest privately-owned hydro station in the country, and just over the city line of Buffalo, one of the largest steam electric generating stations in the world, together with smaller units. We have 3,442 miles of high-tension transmission lines and 29,940 miles of distribution circuits in a territory of 5,950 square miles. We have highly concentrated urban loads in the cities of Buffalo and Niagara Falls and we have farm customers far out at the end of rural feeders. These facts show that we have a fairly good cross-section of this industry's operations and are exposed to all of its hazards.

Quite some years ago, we found ourselves in difficulty with accident frequency and severity, too, especially in the distribution field, and we decided that we were going to come to grips with the situation. The first step was to study our records and to find out what our men were doing that was costing them their lives. Then we examined our own safe practices provisions, our "Mark Up" rules and "Rules for Safety of Employees" of the Company, and the conclusion was reached that perhaps instead of a constant violation of rules as the term was usually understood, that there was a failure on the part of our men to study and to make sure that they understood the rules as provided, and that perhaps we should go further than to hand out the rule books and take a receipt for them with the assurance that that was sufficient for the purpose.

Do They Know Your Rules?

We, therefore, set about to examine each electrical worker in the Company orally, in the presence of a stenographer, with a chart showing a pole top on which there appeared a transmission circuit, primaries, secondaries on a rack and a communication circuit. Questions were asked, not the same questions of each man, directed toward a situation that might arise while working on such a pole and as to how each man would handle himself within the safety rules in a given situation.

We were astounded to find out that we had been penalizing or threatening to penalize men for failure to carry out rules when, as a matter of fact, they didn't know the rules. In our judgment, therefore, the failure was as much management failure as worker failure.

So we set out anew to train our men. Linemen's schools were organized where training could be carried on, illustrating a live line situation on dead line work. Through safety meetings, visual aids, posters, models, field visitations and every legitimate means at our disposal, we sought to educate and persuade our men that these safe practices were life savers.

Progress was made and the fatality rate began to drop. As these safe practices became more and more an accepted part of the work procedures, we began to stiffen our requirements for this work. For example, the super-

intendent of distribution, when he felt that the proper point had been reached, made it a part of his operating procedure that a lineman who failed to wear his gloves within reach of energized primaries no longer could be a first-class lineman. Foremen were held responsible for the enforcement of this rule.

We did not start out immediately with a set of rules that had stiff penalties to back them up because we believed that to put rigid enforcement of new practices too far in advance of current performance would lead us into difficulties. It was when the majority of the workmen and supervisors had been sold on the soundness of our safe practices that the few who did not conform could be brought into line by penalties which the majority accepted as just and reasonable.

Fig. 2 shows some of the results that have been obtained. On it, we have plotted the fatality rates of the electric industry as well as our own. We have made progress and we think we are on the right track, but we have not by any means attained our goal.

We cannot be content until we bring the ratio to an irreducible minimum and maintain it there. The forces that threaten the lives of our employees are numerous and complex and they never rest. The biggest part of our job still lies ahead.

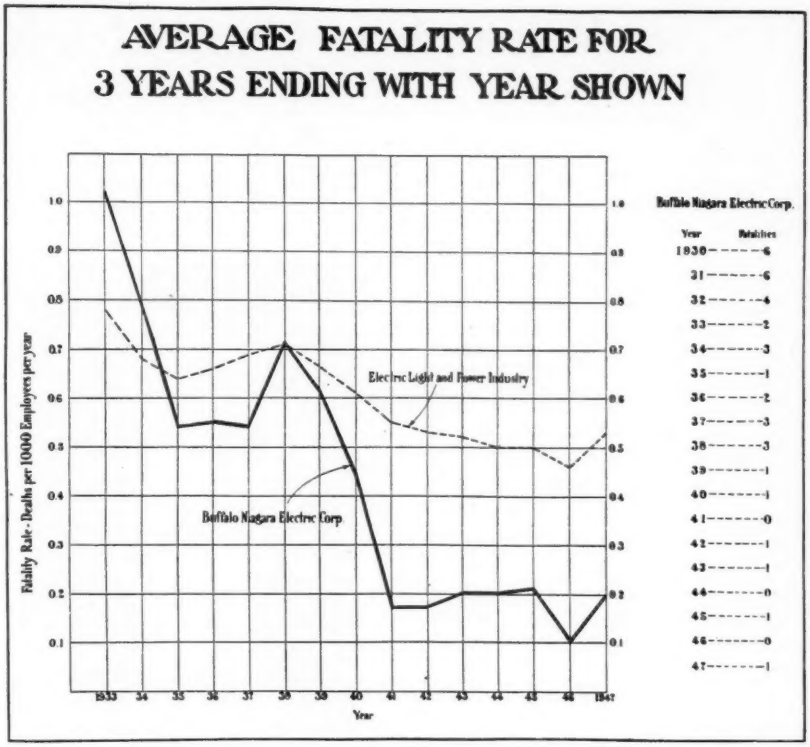


Fig. 2

Meeting the Challenge

In this present year, the industry has tools with which to work that are better than it has ever had before. The Accident Prevention Committee of the Institute has boiled down the lessons from billions of manhours of experience to a handful of safe practices expressed in the simplest of terms. If these safe practices were uniformly adopted today and enforced, then fatality rates and disabling injury rates would come tumbling down to a level that would make today's record look as high as the record of the 1920's appears to us today. Leadership is the missing factor and it is up to you and me to supply it. When the fact is fully appreciated that a high accident rate isn't just presumptive evidence of something wrong with management but the strongest kind of proof of it, we shall be on our way.

The amount of time needed to demonstrate the interest of top executives in safety and keep the organization hard at it is, by and large, comparatively small. Every hour that you and I devote to accident prevention will be returned many times in a safe, happier and more efficient organization. We cannot afford to let the thousand and one things that clamor for our attention push accident prevention out on the fringe.

The importance of supervision of automobile operations must be accentuated. The member companies of this Institute operate large fleets of automobiles on the public ways of this land within and without municipalities. An automobile left in the hands of an incompetent or careless person may well become a death-dealing instrumentality. That we are bound to know. The name of the company on an automobile is a challenge to the management and we may not allow the continuous operation of the automobiles without bringing to ourselves the knowledge of the method of their operation.

The rules of the road, either under state or local law, should be first taught and secondly, enforced. Inspectors and supervisors should be spot-checking operations. In other words, we may not assume that our men know the rules of the road and are obeying them. It is management's duty to know. And one more thing about this. We are often judged as to the kind of people we are by the impression our drivers leave with the public. The driver who never surrenders the right of way to another or to a pedestrian at a crossing, and who rushes through traffic, leaves an imprint on the public mind very often associated with the management.

Conclusions

In closing these remarks, a few things taken from experience have proven helpful in keeping a sound accident prevention program going effectively.

1. Establish a sound Safety Department with a man of thorough engineering training at the head of it, and once you are satisfied with the Safety Department as constituted, see to it that the recommendations of the department are adopted and enforced.
2. Follow the accident trends. If trends are unsatisfactory, call for reasons. If they are good, let your people know that you have noted the fact.

(*Continued on page 227*)

Who Are Our Stockholders?

By Harold S. Sutton

Treasurer, Consolidated Edison Company of New York, Inc.

An Address before the Sixteenth Annual Convention of the Edison Electric Institute, Atlantic City, N. J., June 3, 1948

A PARAMOUNT problem of the day is public relations. American business long ago mastered the job of producing its goods in quantity, cheaply and well, and distributing them widely. During recent years it has come to realize that it now has another job—to defend its own place in the social scheme, to justify the private enterprise system under which it operates, to tell the management side of the labor-management story, and so on. Public relations, so-called, is the modern tool. This is almost too fundamental to bear repetition here.

Lately an outgrowth of this public relations consciousness has appeared in the form of a stockholder relations consciousness. Business heads are coming to realize not only that the stockholders are entitled to consideration, but that their cultivation pays off in loyalty, interest and cooperation. It is almost as though management had directed their attention to the sides of the well-known triangle in three successive stages — first the customers, then the employees and now the owners. All of these are, of course, but segments of the general public—often overlapping.

Study of Stockholder Relations

What is reported to you here are the results of recent investigations and studies which our company has been making in the field of stockholder relations, trying to find out something about the owners. Hence there are many references that must necessarily be made to our company. If our findings and conclusions have any value to the light and power industry, or to business generally, it is by way of a case study. Therefore, we give you the particulars of this case study, and indicate some of the conclusions and lessons we think may be drawn from it.

Like many other American corporations, Consolidated Edison has been practicing stockholder relations quite intensively over the last decade. For example, some years ago we adopted

MR. SUTTON

the welcoming letter to stockholders and the quarterly dividend enclosure giving company news and earnings. We have gradually been streamlining our annual report. We send to all stockholders fairly complete stories on our annual meetings. We carefully reply to stockholders' letters, and try to do a lot of other little things we think our job requires and which we hope may help to make them think well of us.

From our contacts with the institutional investors—the banks, investment trusts, investment counselors — we were well aware of their interests and attitudes, but what about the rest, the individual stockholders? As to them, we have wondered whether we were groping in the dark. We didn't really know the kind of people we were directing our efforts toward. We were like a manufacturing concern trying to sell a product without knowing its market. If we could only know more accurately the "nature of stockholders," we could proceed much more intelligently in addressing them.

What kind of people were these who had bought our stock, and why did they buy it? Had they in fact bought it, or how had they come by it? If they had bought it, who and what considerations influenced them to buy it? Were they investors or speculators—how many of them were holding the stock for income and how many in hope of profit? How many of them owned Consolidated Edison stock only? In how many cases was it simply one of their several investments? Into what age groups did they fall, and into what income brackets? What did they do for a living, or how many of them didn't work at all, because they were retired and living on income?

For some time we had been sending out the various communications mentioned above. How did the stockholders like them? What did they think of the welcoming letter? Did they like it or did they think it was the bunk, or didn't they care one way or the other? The volume of acknowledgements had been so small as to suggest the last. Did they have any interest in the dividend enclosure, or were they interested only in the check that was in the same envelope? How did they like our annual report? Even, we might ask them, what did they think about the management?

Getting the Answers

It is easy to be dogmatic about the answers to these questions, and many a vice president will reel off the answers at the drop of a hat. The trouble is that none of them agree. So we decided to make a conscientious effort to discover what the story actually was. We thought best to concentrate on the common stockholders only. We felt that, for the present at least, we could take it for granted that the holders of the preferred stock were dyed-in-the-wool investors, interested primarily in safety and income, and content with a fixed return. We also feel that their reactions to our stockholder relations activities would be about the same as the common stockholders'.

Of approximately 124,000 names in which the common stock was registered, we found that about 108,000

represented individuals—men, women or joint ownerships. We assumed that the stock standing in the names of bank nominees, brokers and other fiduciaries, was in fact the property of individuals, the pattern of whom would follow generally the pattern of the shares in individual names. The insurance companies, the investment trusts and other so-called sophisticated investors, did not concern us for this purpose, so their names too were left out.

The obvious way to get the information we wanted concerning these 108,000 individual stockholders was by the use of the modern business tool, the public opinion survey. We called in a leading firm to advise us, and followed throughout the established techniques of the public opinion polls.

Survey Procedure

You may be interested in learning exactly how we proceeded. For reasons of both speed and economy, we decided to use a mail survey, followed up, for checking purposes, by personal calls on a number of those who did not respond. The experts told us that if we mailed a questionnaire to about 8 per cent of the list, and tabulated the answers we received, we would have an adequate statistical sample of the mail responses. The names were selected by pulling every twelfth name from the alphabetical list of common stockholders, unless such name happened to fall into one of the eliminated classifications, in which case the twelfth following was taken.

To each of these names we sent a questionnaire in the form of a four-page folder. The front page contained a letter over the facsimile signature of the president of the company, explaining briefly that we were interested in the opinions of our common stockholders on many matters, and asking for their cooperation by way of as complete and candid answers as they were able to give. We told them we expected to make use of the results in assisting us to better serve their interests as stockholders. No place was provided for a signature, but each questionnaire bore a code number to enable tabulation as to geographical location and size of holding.

The experts said we should expect around a 20 per cent response. Actually we got over 27 per cent.

We trained a group of our public-contact employees and, after the mail questionnaires had come back, sent them out on a personal canvass of enough of the non-respondents to find out whether or not their failure to respond had been because of any prejudice. As it turned out, the results of these interviews followed very closely the pattern of our mail responses, and bore out the conclusions arrived at from the mail responses.

The results were carefully entered on punch-cards and tabulated in accordance with the best statistical techniques. A number of breakdowns were made. One was as to geographical location—that is, whether in New York City or outside, and for the total U. S.; another, as to size of holding—1 to 4 shares, 5 to 9, 10 to 19, 20 to 29—and in blocks of increasing sizes up to 5,000 shares and over; another as to income brackets—under $3,000; $3,000 to $4,999—up to $20,000 and over; another, as to age brackets; another, as to sex.

Study of these breakdowns has given us a lot of angles, and from them we have drawn our conclusions.

Conclusions

Conclusion number one, is, as some of us had long suspected, that stockholders are people, and that our stockholder list is, in the final analysis, just a cross-section of the body politic, with two general exceptions. One is that the stockholder group is older, the median age being 40 per cent higher than that of the nation's adult population, as was to be expected. The other is that the annual income is higher.

On the other hand, we did unearth some important facts and some surprising ones. Possibly the most interesting was that only 5 per cent of the stockholders are ours alone. In answer to the question, "Do you own other stocks beside Con Edison?" ninety-five per cent say yes. Of these, 12 per cent said they owned several (2 or 3), 37 per cent a few (3 to 10), 51 per cent over 10.

From this data alone it might be deduced that our stock is owned by a group of wealthy investors. However, this is disproved when we turn to the income figures and find that the median yearly income of those reporting was $4,700. But, as might be expected, it was found that the greater the income, the larger the holding of our stock.

A look at the distribution by occupations likewise disproves the wealthy investor theory. The most frequently mentioned occupation was housewife—this by 24 per cent of all stockholders responding to the questionnaire. The next two classifications at 19 and 18 per cent respectively were proprietors, including managers and officials, and retired persons. Professional and semi-professional workers comprised 16 per cent; clerical, sales and kindred workers 13 per cent. Furthermore, we knew the median holding of Con Edison common stock to be 34 shares, representing capital at today's market about $800, which again indicated modest means.

Competition for Stockholders

Does not this fact, that only 5 per cent of the stockholders are exclusively ours, emphasize that we are in competition for favor with the stockholders of a large number of other companies? Does this not mean that the impression we make upon our stockholders may well determine whether, if they have to sell some of their holdings, they decide—values of course being equal—to sell someone else's and keep ours; or, conversely if we and other companies happen to be offering rights to subscribe for new stock at the same time, they will buy our stock instead of someone else's? We think the answer is yes, and we have accordingly a new concept of our competitive position with respect to securing funds in the investment markets.

Possibly the next most interesting finding was how these people happened to become stockholders. Not all of them purchased their stock—only 87 per cent; 3 per cent acquired it by gift, 9 per cent by inheritance and 1 per cent by distribution from another company.

How did those who bought it happen to buy it? What influenced their decision? The replies show that some 58 per cent acted on the basis of personal recommendation. These recommendations came from many sources. Brokers were in the lead with 34 per cent and bankers accounted for 10 per cent. Friends and relatives, however, accounted for 23 per cent and 22 per cent of the recommendations, respectively. We have no way of knowing this from the survey, but we think it is safe to assume that some of these 45 per cent of friends and relatives may also be bankers, brokers or members of the financial community. At

any rate, the 34 per cent of brokers and 10 per cent of bankers—nearly half of those whose recommendations influenced the purchase of the stock—were surely identified as financial people, and this points quite clearly to the desirability of making friends within the financial community and keeping them.

This information is extremely helpful in determining the format and content of our annual report. It says to us that, however much we may glamorize it with pictures, charts and color, and tables showing "where the money came from," and "where the money went," we must be sure to include the information the financial people want and in the conventional form in which they are accustomed to getting it.

Investors in Majority

The survey has convinced us of another thing. A majority of our owners are out-and-out investors. We have a number of angles on this. We asked the question, "Are you holding the stock primarily for income, for appreciation, or both?" Of those who answered this question, 64 per cent said they were holding the stock primarily for income, 35 per cent for both and only 1 per cent for appreciation. We were able to pursue this further, too, for we had listed on the questionnaire a number of suggestions as to factors which might have influenced the stockholders' decision to buy the stock. Some 33 per cent said they had been influenced by the company's dividend record, 27 per cent by faith in the public utility industry, 18 per cent by the company's financial condition and 12 per cent by the territory served.

These answers all seem to boil down to a desire for stability of income and security of investment. Of course, some will argue that no common stock should be bought for stability of income and security of investment. Possibly so. But the fact is that a tremendous amount of it has been so bought, in the case of this company at least. Certainly there is little or no indication of the speculative "in-and-outers" in our group.

On one question we really stuck our chin out. Looking toward the future necessity of selling more equity securities, we asked, "Would you buy more common stock in Con Edison?" We realized that this was a wide-open question and one on which we would not get anything very definite. We were looking rather for the expression of an attitude. Obviously, if you ask a man if he would buy more stock in a given company, he is pretty likely to ask you under what conditions it is to be offered. If you mean to issue rights to purchase it at a price under the current market, that is one thing. If you mean, will you buy it on the market if the price declines, that is something else.

Well, of those who answered the question in the form we put it, "Would you buy more stock in Con Edison?" Seventy-four per cent said yes, and 26 per cent said no. But of those who said yes, we were not at all surprised to find that 38 per cent conditioned their reply by indicating they would do so if they had funds available.

A very interesting line of comment was developed by those who said they would *not* buy more Con Edison stock. Of these, 23 per cent gave the very logical reason that they would prefer to diversify—to make their further investments in companies other than this, or in stocks other than public utilities. A fairly substantial number commented upon the fact that the industry was too much regulated by the government; that the regulatory bodies were not granting prompt rate increases; that they did not like the political situation surrounding utilities; that they felt the industry was vulnerable to inflation. On the whole, the attitude expressed was fairly optimistic, we feel, as to the sale of additional common stock to our present stockholders.

Criticism of Management

But this question did give some of them a chance to take a swing at the management. In the exact words of one, "There is an indicated tendency to consider primarily the rights of employees and management, and to let the stockholders be the hindmost devil." Another sample was, "Under no conditions whatever, without a complete change in attitude toward holders of the common stock." Why, in the face of such an attitude, they continue to hold their stock can only be put down to the well-known inertia and perverseness inherent in the human race. It only goes to prove that stockholders are people.

The answers to the questions to obtain stockholder opinion on our president's welcoming letter, our dividend enclosure, our annual report and other company stockholder relations efforts, are not of any particular significance here, but certainly the endorsement of each of these by the survey has been sufficient to convince us we should continue them, substantially as is. In certain cases we shall adopt recommendations made for changes. It was certainly gratifying to learn that 88 per cent of those who expressed an opinion said that the company was giving its stockholders enough information.

The $64 Question

The $64 question from our standpoint was the one, "How would you express your opinion of the management of the Company?" Try to guess how your own stockholders would respond to such a question. What percentage do you think would say very favorable, what percentage favorable, what percentage uncertain, what percentage unfavorable, and what percentage very unfavorable? How many would you think would respond at all to such a question? Those who acquired our stock at market prices considerably higher than the present were generally much less favorably inclined toward us than those who acquired the stock at prices under the present market. This we were able to tell by relating the replies to the age of the account.

There had been some feeling before we undertook the survey that it might turn out to be a hot potato—that stockholders would say that we were prying into their affairs, and would take it as an occasion to sound off on all sorts of grievances. I will not deny that there has been some small evidence of this—according to the poll experts we set off the normal number of discordant notes. Several stockholders suggested, for example, that the size of their incomes was knowledge for the income tax collector and nobody else; quite a few of the ladies wrote, opposite the age blanks, "None of your business." But, at that, some 83 per cent answered the questions on age and income.

On the whole, the responses to the questionnaire were candid and conscientious. Many were highly gratifying; a number quite flattering. All in all, we are glad we did it.

We have made dozens of different tabulations from these data. But it all

comes down to proving one thing—stockholders are people. They come from all walks of life, from all occupations. Being mostly owners of several stocks, they are people who are investment minded, interested primarily in security and income. That we have proved.

Effect on Industry

On the other hand, admittedly this is only a scratching of the surface of a big subject. If these findings are typical of our industry and further investigations tend to corroborate them, and if they could be given circulation and gain wide acceptance, they could exert a profound effect upon the industry's future. For example, could not the removal of the stockholder from the misty haze of the unknown, into a recognizable type of citizen, conceivably come to have an influence upon our regulatory authorities?

These stockholders are not a class apart. They are people. To have become a stockholder in the first place, presupposes some degree of self-denial and saving effort, and presupposes confidence in an economic system that will make self-denial and saving worth while. In a country dedicated to the individual private enterprise system, these citizens deserve all consideration, encouragement and applause. They deserve the right to be heard and to have their interests safeguarded.

But consider the implications in this quotation from a recent annual report of a State regulatory body:

> "During the year, the Commission continued its efforts to bring about further rate reductions to the millions of utility consumers in the state, with unusually successful results. The services rendered by the various utilities are essential to the life and activities of nearly every individual in the state. The cost of these services constitutes an important element in the family budget as well as in business and industry."

Actually, as we all know, the cost of these services *does not* constitute "an important element in the family budget," or in the large majority, at any rate. Furthermore, and again as we all know, except for heavy industries, it is *not* "an important element" in business and industrial budgets. But, aside from that, what about the contribution of dividends to the family budget of the stockholder? As far as our company is concerned, the typical (median) individual stockholder owns 34 shares. That means he is now receiving $54.40 a year in dividends. We found that he is the owner of several stocks, so it is safe to assume that his dividend income may be several hundred dollars a year. Surely dividends make a far larger contribution to his family budget than his utility services cost him.

Says this same report:

> "The reductions in the cost of utility service during the war years are of special significance, as they have been accomplished in a period of rising prices of practically all other necessities of life. Recent studies by various governmental and private agencies indicate that the cost of living since the start of the war has increased by about 30 per cent."

Regulators vs. Stockholders

What are the regulatory authorities doing to help the stockholders to cope with this rising living cost—today far higher than 30 per cent over prewar at that time? Dividend increases have been fairly common among the industrials, as our stockholders are quick to remind us, but very, very scarce among the utilities.

In fact, it would look as if the stockholder couldn't possibly win, if the regulators had anything to say about it, for we read in the same report:

> "In the early thirties, when prices of commodities were going down, the Commission insisted that utility rates should also be reduced, and important savings were accomplished in those years. . . . Towards the close of the decade, when the economic pendulum began to swing the other way and many prices began to rise, the increased earnings of the companies, together with various operating economies, made further reductions possible."

Now I am not naively suggesting that the regulators of our industry are going to throw overboard "their aboriginal cost less straight-line depreciation" doctrine, or their "prudent investment" doctrine, or whatever doctrine they may be basing their rate-making practices upon. I do not suggest, either, that they are to be expected to adopt a rate of return which would be unrealistic in the light of the current money markets. I certainly do not think that, in the utility industry, it would be feasible to attempt to relate the return on the securities directly to the cost of living index. But it does seem that there is an ample scope in the regulatory process for the exercise of an enlightened judgment based upon a new look at the owners of the properties, and who they are, and their place and their equities in the social scheme. To be specific, I am suggesting in all seriousness that the regulators should consider, and consider well, the effects of every rate change upon the individuals whose money is invested in the shares of these utilities.

Already, at least one of the commissions has called attention to the fact that the utilities have a public duty to continue to expand their facilities, even at present high prices, in order to provide adequate service for their customers, and that the consumers must be prepared to pay rates reflecting such high costs. This is progress in the right direction.

A Hope for the Future

Would it be too much to hope that some day, somewhere, some regulatory body, conscious of the true nature of the owners of the business—realizing that stockholders are people — and faithful to its original conception as a quasi-judicial body—would it be too much to hope that such a commission might say in its annual report, "During the past year, this Commission brought about no rate reductions whatever, in view of the rising costs of operations. Indeed, in the case of one company in the state, where rising costs threatened earning power, and hence the safety of the dividends which its X-thousands of stockholders have been receiving regularly for the past X-number of years, the commission permitted a prompt and substantial rate increase. But we would point out that, based upon recent studies by various governmental agencies, the cost of service to that company's average user will constitute no more important element in the family budget than it did formerly, considering the recent rapid increase in the average family income."

Fantastic? Utopian? Well, maybe so. But now that we are beginning to know who the stockholders actually are, we ought to try to make out a case for them.

The Future — A Challenge

By J. B. Thomas
President, Texas Electric Service Company

An Address before the Sixteenth Annual Convention of the Edison Electric Institute, Atlantic City, N. J., June 3, 1948

FUNDAMENTALLY, the electric light and power business consists of supplying electric service to millions of customers who cannot as conveniently or as cheaply provide such service for themselves, and in having those customers respect and have faith in us and know they are getting the worth of their money. It requires the weaving into our plants and facilities a constantly changing and ever increasing number of technical devices which progress in physics and engineering makes available, and in having our facilities grow with and to some considerable extent ahead of the demands of the communities and people we serve.

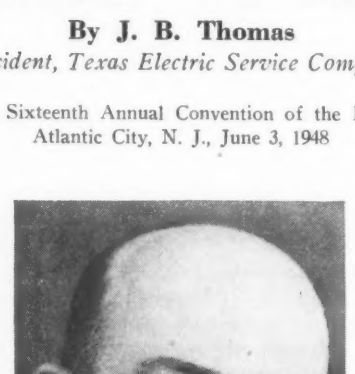
We have been able in late years, by reason of our growth and the improved economy of new apparatus, to give the average customer more and more for his money, year by year. We were able to avoid the effect of inflation on our rates until long after it had affected the prices of almost everything else the householder or businessman used. Only in recent months has it been necessary to take rapidly increasing costs into account by rate increases in those sections of the country most affected by rising fuel costs. Few industries can boast such a record.

The Industry Since 1930

We, as an industry, took a drubbing in the 1930's, much of it brought on by the depression and its political repercussions. Some of the regulatory structure resulting from political and public disfavor was harsh and overburdensome. Nevertheless, our industry has met this situation and is fairly on its feet financially and operating wise, and in public esteem as well.

We have to our credit an excellent record during the war when we not only carried the loads of our normal customers, but met in every case the requirements of power for war production.

We have been victims, to some extent, of the growth in our country of a trend to socialism and the nationalization of all enterprise. The nationalization of the electric utility industry has been an avowed purpose of radical groups for more than twenty-five years and was a main objective of Nazism in continental Europe. We have been successful in holding our own as an industry in our country, and by far a greater majority of electric customers here are served by private enterprise.



MR. THOMAS

As a going commercial industry we are more than fifty years old. We have reached the mid-point of the life cycle of most industries. We are old enough that it becomes us to look about us with care and with keen perception to discern the elements that threaten our position and our future progress.

The future does bring us a challenge—it is not a single challenge, but a composite challenge out of the complex world of today.

First in the list of the elements of this challenge, place the need for an alert, aggressive sales philosophy and policy and procedure. We are on a good tide of public interest and acceptance, and we should aggressively sell our products and our business. I have little patience with the viewpoint that, because of brief equipment shortages, we should curtail our sales effort, diminish our sales forces, or refuse to accept the responsibilities of serving the electrical needs of the communities in which our properties are located. True, there are many sections in which we are for the moment short of capability on our highest peaks, and short on reserve capacity until the large construction programs now under way are completed. And yet, if we fail to take advantage of public interest and the desire to have and willingness to pay for more electrical equipment, then we will lose to our many competitors for our customers' dollars a market which would afford us substantial revenues for many, many years to come.

Scientific Progress

High in the list of the elements of this challenge there is the technical and scientific progress of the world at this time. Can we ourselves use it in our business wisely and profitably?

Many of us who have seen the efficiency of generating equipment more than double in our useful lifetime are now looking at new equipment and the possibilities of new equipment yet to come, which offer opportunities for much further improvement.

When we look back to the time when Edison made the first successful incandescent lamp and thus gave the first real commercial opportunity for an electric business, and think of the progress that has occurred since that time; when we look at the present field of scientific knowledge and contemplate its expression in new devices and methods and understanding; when we consider atomic fission and the possibilities of nuclear physics as affecting our industry; when we realize that Mr. Einstein was probably right when he said that one pound of matter contained eleven billion kilowatthours of electric energy if it could all be gotten out, we must realize that the only limit to the progress of our

business is the imagination and skill and courage of those in it. These are our new frontiers and their boundaries are the boundaries of human knowledge on the one hand and our ability to apply this knowledge to satisfy human wants on the other. Certainly, no man can say that this industry is not faced with a marvelous challenge as to opportunities for progress and growth in the technical field.

Changes in Character

Next on the list is the challenge of the changing character of our business. As economies in fuel are effected; as the services we bring into homes and stores and factories grow greater in number; as investment goes higher and the fixed charges connected therewith rise; as taxes take an ever increasing slice out of the money that we earn; I wonder if all of us realize that, particularly in the residential field, our business has made a transition, rather a startling one, from a business whose product could be measured as a commodity to a predominantly service business in which the principal costs are hire of money, taxes, depreciation, and other service costs. This business has never been a commodity business like the selling of apples or potatoes, and many of our troubles have arisen from trying to make it appear so. It is a service business—readiness to serve, continuity of service, response, courtesy, help—these are the things people want and appreciate, and these are the things that predominate in our costs. It is time to recast our philosophy of charging for residential service. It is time to work out some way to charge for service instead of kilowatthours. What about an economical load limiting device that will give notice when the lamp or gadget, which exceeds the established limit, has been turned on? Then let mama, who is the boss of the household, decide whether to do without the toaster while the iron is on, or—as I think she will—quickly arrange for a larger unit of service.

It is time to make it to mama's interest and ours to keep the electrical demand of her household down so as to make maximum use of the facilities already there, and thus let us provide her with more kilowatthours, and with more comfort and content and usefulness for the home for each dollar of her monthly bill, and for each dollar of our capital invested.

Here I would remind you of the very great amounts of capital that are necessary to meet the great surge of demand for electric service following the war, the pent-up desire for electrical equipment and service due to the war years in which these things could not be secured, and the growth and decentralization of the manufacturing industries of the country. This is a business in which from four to six dollars must be invested in new equipment for every dollar of additional annual revenue; a business, where, under today's conditions, plans must be made and commitments made for additional facilities three and four years ahead of the time at which they will become useful and produce that revenue. And remember this: if this business is to continue as private enterprise, these funds must come from private investors who know enough about the business and believe in it sufficiently to be willing to invest their savings in it. Under present regulatory conditions as to financing, well toward one-half of all the new money required must be risk money—equity money—on which the investor has to look to the continued success and earnings of the business for his return; and further, this expectation must be had with the knowledge that the business is a fully regulated business in which there is little opportunity to have seasons of large earnings to offset lessened earnings in depressions and in times of difficulty. How important it is then that we conduct our affairs so as to warrant full public confidence, to have the public fully informed as to the strength and advantages of an electric utility industry, and to arrange and keep such integrated groups as will provide the physical and financial strength to meet our problems of growth and to enable us to keep our position as private enterprise.

Financial Problems

In connection with this problem of raising new capital, there are some things that demand our study and earnest effort at adjustment. Stated briefly they are:

1. Double taxation of corporate earnings.
2. The tax free features of governmental issues for proprietary ventures which sidetrack vast sums of investment capital into municipal and governmental channels instead of into private enterprise.
3. A general Federal tax situation in which capital gains are the principal remaining channel for an investor of considerable income to add to his worth by investment. This business, it is well known, is not a capital gains business.
4. The fallacies of the "original cost" theory in a world where the value of a dollar is constantly changing. Today, we must spend one and a half to two times the dollars of original cost when we replace equipment installed a few years back, and we are allowed to accumulate reserves for no more than the replacement of the original investment in dollars, so that the excess of this greatly increased cost over original cost demands additional capital.
5. The fact that we are being forced to write off, out of earnings, that sound investment made when, as we acquired properties originally, we had to pay the owners more—and justly—than the original cost of the properties acquired, because of their prospective earning power and their very necessity for that integration which has made the present electric industry possible, and which has worked so greatly to the public interest.

All these things have a very great bearing on raising capital which we are requiring and will continue to require, and deserve continuous, effective effort toward their correction.

Customer Challenge

Next on the list, there is the challenge of seeing that our customers know what and who we are and what we are doing for them. If we just give good service and say nothing, the service is soon taken for granted and people think that the lights should go on at night just as the sun rises in the morning. They soon get the idea they should not pay any more for our services than they pay for sunshine. Are you doing your best to keep people alive to the things we bring them; the reliability and value and extent of our service; of our place in building and sustaining the communities which we serve?

Do your customers know the war

record of our industry and our enormous job of keeping up with postwar growth and readjustment? Have you told them that this is truly a private enterprise where their young men may grow and learn and be useful—that their savings may be invested with us in confidence? Do they know how rapid and real the progress of this industry has been in adding to their comfort and pleasure and ability to produce things, and how bright the promise is for still greater progress along this line?

Government Projects

What are you telling people about the faults and shortcomings of the governmentally financed projects that are being used to threaten our industry, and all private enterprise, with collectivism? About governmental subsidies paid out of taxpayers' pockets with which to build plants that unfairly give lower rates to customers in one section of the country than can be fairly given to those in another section served by taxpaying private enterprise?

The record of governmentally subsidized plants is clear; the facts are coming out every day. The contrast of the true performance of socialized electric industry with its promises is written in the records of almost every one of them; and often there is still untold the facts about the unfair allocation of costs between flood control and irrigation on the one hand, and the electrical facilities on the other. Have you told about open-ended estimates of cost that are rarely met and mean open doors into the public treasury; about the removal of great units of taxpaying property from local and state and county and national taxation and its effect on local taxation; about political intrigue; propaganda funds; taking part in local politics under a plan of national collectivism? You have a hundred things to talk about. It is time to go on the offensive and tell what is wrong about those adventures in collectivism, and how they injure the country and its citizens.

The E.E.I. is an honorable institution of many years standing. It represents the results of planning and interest and work of a great many fine men for many years. Nevertheless, let's be frank about it, it has stood for years, complacently, while the advocates of socialism and communism have attacked it, without making any aggressive and effective counter attack.

Let's break up this complacency and get going on an aggressive public information program. The stage is set for it. The time is ripe for it. People have begun to realize that sleazy idealism can have as many faults as practical business, and more; they want to be told how the possible socialization of our business affects them.

We have an excellent fact-finding staff; let's have an equally good public information staff. Let's have a public information committee of twenty or more top-flight utility executives to lay out a broad policy and a well planned, well organized constructive public information program; let's have a good executive committee of five of them to see that the plan is carried through. Let's really get into the fight between private enterprise and socialism, such as now in truth is exemplified by the contest between this well placed industry that has met the real needs of our country without public subsidy, and the collectivism exemplified by governmentally financed projects, subsidized out of the taxpayers' pockets, tax free and politically run. We can be sure that the present well planned efforts of many of the individual companies will aid and will be aided by a coordinated national policy designed to get coordinated national response. If we do not want collectivism, we had better start now and fight it, and the best way for this organization—I mean the E.E.I.—to work out all of its programs is to develop good, strong regional groups that, taken together, cover the country, and to work through and with them.

Rearmament

And lastly, in the event rearmament and shadows of war again come on us as now seems probable, we are faced with the challenge of keeping that indispensable tool of our past growth and progress, namely the diversity between customers and community needs over large areas, and the integration of groups large enough to meet the problems of growth at the time, and large enough to have the substantial financial credit necessary to make the best possible solution of the various problems that arise. That growth in diversity and size has been the key to the working out of our problems in the past; it is a necessity for our progress in the future.

Naturally, the proponents of socialization of this industry have taken every opportunity to break it up into little pieces; pieces too small and impotent to have a great effect on their plans and policies. As a result, only recently I heard a fine utility executive say, "Well, when war comes, and the government wants a great block of power in my service area which will cost so much my company cannot supply it, I guess we will have to let the government build their own facilities." Before doing as my friend suggested, let us first try to get the neighboring utilities together and arrange with our joint resources to serve the project. With the shadow of war upon us, we should ourselves set up for these emergencies regional organizations of utility men with the skill and courage and wit to work out the coordination of construction and operation, and financial participation, to provide the necessary facilities in our respective regions.

Regional Cooperation

We should make our plans carefully, and then go to see the Federal Power Commission and the Securities and Exchange Commission, and our State and local regulatory authorities as well, and say "We want, as our part of the rearmament plan and the possible war effort, to work out various regional groups to cooperate so that we can build and operate the new capacity needed in our areas, and thus avoid the dissipation of public funds for this important part of rearmament or war effort."

There is ample precedent for regional cooperation. We fellows in the Southwest worked together to a considerable extent in the coordination of construction and operation in the last war; the Northwest did the same thing, and others also.

The Public Utility Act of 1935 sets out such an objective in Section 202a as one of the purposes of the Act:

> "For the purpose of assuring an abundant supply of electric energy throughout the United States with the greatest possible economy and with regard to the proper utilization and conservation of natural resources, the Commission is empowered and directed to divide the country into regional districts for the voluntary interconnection and coordination of facilities for the

(*Continued on page 227*)

Selling Selectively Now For Maximum Future Benefit

By George E. Whitwell
Vice President in Charge of Sales,
Philadelphia Electric Company

An Address before the Sixteenth Annual Convention of the Edison Electric Institute, Atlantic City, N. J., June 3, 1948

IT is, perhaps, not too difficult for a single electric utility company to appraise its present situation and to plan reasonably comprehensive present and future sales activities that will be to the best interests of its customers, its employees and those who invest in its securities. To attempt, however, to do more than evaluate average conditions presently existing among all of the electric utilities in the United States is not possible and, in looking into the future on such a broad base, even averages can be predicted only with some elements of doubt.

"Selling Selectively" can mean many things to many people. Essentially, it means to all of us selling which is planned and guided in such a way as to produce the maximum return for the utility on the minimum investment that is necessary to meet properly, the requirements of the communities served. Stated slightly differently, it requires sales that will produce maximum kilowatthours per kilowatt of capacity. Temporarily, it also means the kind of selling that recognizes the degree to which the system capacities of electric utilities can carry additional loads.

Selective Selling Interpretation

In each utility selective selling will be interpreted differently. Sales plans considered essential in some communities would be unwise in others. There can be no single description of such selling that at any one time would be applicable to all of the electric utilities in the country.

Whatever selective selling means in any individual instance, it certainly should neither be discontinued nor reduced, but rather, in the light of existing conditions, it should be a tool which is constantly being sharpened in order that it may be ready at any time for increased use. The future, whether it continues to be one of great demand for our product or one that involves recession or even depression, will require production and sale of many more kilowatthours than those which our customers will just take from us.

MR. WHITWELL

While selling selectively is something which electric utilities can more or less control, it must be remembered that that control should be such that maximum future benefit will be reaped by many parties of which the utility is only one. Surely benefit should accrue to our customers; our employees' welfare is essential; the financial aspects of our companies must be such that our securities are attractive to investors.

Furthermore, there is an interdependence between the various branches of the electrical industry, of which the utilities are only a part. This interdependence requires that our operations are such as never improperly to let down the manufacturer, distributor, and contractor who is involved with the equipment, appliances and devices that are his bread and butter. We are interested in seeing that selling at the local level is good selling and will result in adequate installations that are good advertisements for our business. To accomplish this, we should continue to supply leadership in market development.

In addition, we, the utilities, or we, a part of the electrical industry, are an important segment in the over-all national economy. Consequently, our sales, industry-wide, must be sufficient to make sure that no real brakes are applied to the continuation of production levels necessary to sustain the highest country-wide production that other conditions permit. In the event that the economy slips, we cannot fail to be prepared to take the lead in effective selling which only a glance at history shows conclusively is the only tool that starts the climb up from the bottom of a depression, or, more happily, halts sooner than would otherwise be the case the slide downward from a plateau of prosperity.

The Industry's Selling Obligation

Therefore, selling is not something that should be turned on or off as a light switch to suit some condition peculiar at a given time to the electric utility industry. The problem is not as simple as that. Electric utilities are involved inextricably in the well-being of the communities they serve and in that of the nation as a whole. It is their obligation to sell continuously but with regard to the interests of all who depend upon them.

Effective sales management has been one of the more important reasons why electric utilities on a nationwide scale can regard with modest pride the manner in which they have met the challenge of inflation. No industry has contributed less to this evil which,

spiraling like a tornado, can bring, unchecked, only catastrophe.

In the 1941-1947 period, unit sales of utilities, as reported for the nation by the Edison Electric Institute, measured in kilowatthours, increased 55 per cent. Unit production of manufactured goods, as determined by the Federal Reserve Board Index, increased only 15 per cent. The utilities sold their average kilowatthour for 1.90 cents in 1941 and for only 1.77 cents in 1947; their average residential kilowatthour for 3.73 cents in 1941 and for 3.09 cents in 1947, a decrease of 17.1 per cent. Unit prices of manufactured goods as shown by the Bureau of Labor Statistics Index went up, during the same period, 63.2 per cent.

According to Dr. Lionel Edie, (See page 191 of this issue of the BULLETIN) utilities required 3.32 manhours of employee time in 1941 to put out 1,000 kilowatthours; they required 2.49 manhours in 1947, a decrease of 25 per cent. Manufacturers required just about the same number of manhours per unit of production in 1947 as in 1941.

Cost of fuel is about one-third of total utility operating expense excluding depreciation and taxes. Average electric utility fuel economy for the United States was about the same in 1947 as in 1941, but total fuel cost increased from $248 million to $601 million, or 142 per cent during this period. Despite this increase, large and small industrial and commercial power was sold by utilities for only 1.41 cents per kilowatthour in 1947 compared with 1.47 cents in 1941.

From the foregoing quick look at electric utility performance, postwar compared with prewar, two important anti-inflation contributions were made by the industry—

1. Both production and production per manhour increased, and
2. Product price decreased.

At the end of the period in question, earnings of electric utility companies generally can be considered to have been satisfactory.

The Postwar Picture

During the postwar period, however, and even before in some instances, new and important factors, many of them inflation-born, entered into the picture. Let's take another quick look, this time at these changing considerations.

These factors are known to you who constitute largely electric utility management in this country, and to the public, particularly the investing public, which has been well informed of them by the press and by communications from banks and investment houses. They are vitally important to this problem of electric utility selling now and in the immediate future.

In summation of the changing conditions which confront electric utilities, four factors stand out—

1. On the average, an adverse and undesirable situation exists with respect to capacity reserves as compared with load.
2. Throughout the United States, installation of additional plant facilities during the 4-year period 1948 to 1951 inclusive will cost at least $6 billion.
3. The annual increase in utility expenses over the country is equal to, if not greater than, the annual increase in revenues.
4. Operating income, averaged for the United States, (1947 compared with 1937), has decreased almost 40 per cent when expressed as a percentage of revenues.

Financial Paradox

There is an apparent paradox of necessity for the expenditure of a very large amount of money in order to restore normal reserve capacity and to provide electricity for anticipated load growth, combined with an operating income from which to provide the interest, dividends and surplus which is no greater in dollars than that which was obtained ten years ago. This paradox poses a serious problem and one in the solution of which much dependence must be put on more and better selling.

In meeting the cost of the new money required for this expansion program and, at the same time, providing adequately for common stock dividends and surplus, several conditions are apparent. In the first place, revenues must be substantially increased. In the second place, some operating economies will be experienced through the use of new capacity being, and to be, installed. Third, accruals to depreciation reserves will have to be larger. Fourth, interest and preferred stock dividend charges will go up materially.

The effects of these factors, applicable with only a few possible exceptions to all electric utilities in the United States, will vary, probably widely, among the individual companies. It is possible that their combination will be adequate, in some instances, to so improve operating income that the problem of these utilities will be solved without resort to other measures. This can be true only if there is soon a halt in, or reversal of, the present upward trend of the cost of labor, fuel and materials.

The alternative will be to increase rates for some or all classes of electric service. Even though price increases will be modest as compared with those already experienced with many other commodities, the objective of the industry will be to hold to the lowest possible amounts any rate increases that become necessary.

Perhaps of even more importance, let us make sure that, when rate changes are made, they are of such nature that the resultant rate structure will be the best obtainable in promoting profitable sales and in insuring maximum use of installed capacity. Good sales management must lean heavily on a satisfactory rate structure. Furthermore, good salesmen can go a long way toward selling increased rates to a utility's customers without damage to public relations.

Increased prices, however, have never before been the normal means of increasing utility revenues. As in the past, so now, sales management and salesmen will be vitally important not only in increasing revenues through sales of kilowatthours to be produced from new plant, but also in selling so that the sources of increased revenue will contribute to the most favorable use of utility capacity, both old and new.

Selling Objective

Obviously, the objective of this selling is not to increase the problem of raising money to pay for high cost plant additions to meet the resultant new loads. The contrary is the case. Ours has always been a growing business. That growth has brought reduced prices and widespread use of electricity to raise living standards and to perform industrial miracles. Continuation of growth can be the largest single factor in contributing to the ability of electric utilities to successfully meet the changed and changing conditions of today.

Top utility management has a definite obligation to recognize the need for well-directed and intelligently planned selling consistent with each local condition and to see to it that the industry does not lose sight of this need. I express this opinion to top management with that complete confidence which can be obtained only from favorable past experience.

The balance of this paper will deal almost entirely with specific suggested methods of getting the best and most from selling. Since it is an integral part of a utility's operation, it must be tempered to meet company conditions such as capacity shortage. Close cooperation between sales and engineering and operating departments is essential. Intelligent selectivity where possible and desirable should be constantly in the salesman's mind.

Residential Markets

The two biggest residential markets are water heating and cooking. Control in selling these two devices can go so far as to add them to the utility's lines in some ratio such as two ranges to one water heater which, in a territory with which I am familiar, produces the maximum return on investment.

On the other hand, where conditions warrant, more sales emphasis can be shifted to water heating which, served off-peak, presents no production capacity problem and distribution problems that are relatively minor. At the same time, a profitable market is built that can be most important in the future. Potentially it is much the biggest residential market that utilities have and it squeezes more kilowatt-hours and more revenue out of present facilities.

In any residential group activity program, emphasis can be shifted from working with adult groups to 'teen-agers who will begin to be our customers about 1950. Experience teaches that this kind of pre-selling is effective and relatively cheap. It builds business and revenue for the future with very little effect on present load.

Among commercial customers major emphasis can be concentrated on those loads, mostly cooking and fluorescent lighting, where failure to do a job would result in competition to electric cooking entrenching itself for years, or in possible loss of lighting because of the greater efficiency of fluorescent over incandescent.

In the industrial customer field one of the most important jobs in certain parts of the country has become that of adding to the utility's capacity reserves. Customers can be sold on temporary maintenance of existing engines. New customers can be advised of an adverse capacity situation where one exists, but assurance also can be given that the utility will have adequate facilities to handle future load additions. Utility chief sales executives have said, after experience and careful thought, that they now would prefer a limited amount of voltage reduction and/or some brief periods of minor load curtailment than to fail to be preparing for the all-important revenue-increasing job that lies ahead.

Where extremes of this kind are not necessary, much benefit can be derived in the industrial field through selling that will contribute to higher load and power factors. We are far removed from the day when the primary industrial job was the shutting down of the isolated plant. Today the applications of electricity to industry are legion. The alert and properly trained and directed salesman can choose to some extent to sell those applications which, while of real benefit to the customer, are, at the same time, peculiarly valuable to the utility. The same result can be obtained in many instances through the availability of carefully designed off-peak night and seasonal rate provisions.

Delayed Sales

Much of the effect of sales activity is delayed. To a large extent, though not entirely, the 1948 increases in load will result from sales pressure that has *already* been applied. This will be true in all markets. In the industrial market particularly, few major loads not already planned can possibly be added in 1948. This condition results, of course, from the long time that must elapse between a decision to expand operations and the completion of the new plant facilities, or between a decision to increase mechanization and installation of the new equipment.

In the commercial field, too, a substantial portion of added 1948 business will result from seed already sown. By the same token, what the utility does during 1948 in business building will affect revenues not so much during that year as in 1949, 1950, and later years.

Temporary reduction in sales activity as contrasted with continued unreduced selective selling always turns out to be very costly in the end. By its very nature, sales promotion in an electric utility cannot be successfully started and stopped at will.

It takes time and costs considerable money to gather sales momentum. For example, if it is desired to substantially increase sales activity in any market in 1949, it is almost too late if a start is made now. There is an extreme shortage of people qualified for electric utility sales work. It is common experience that an average of about six months is needed to find suitable candidates. Then four to six months (much longer for industrial sales) are required for training before assignment to productive work. It is not uncommon, under today's conditions, for it to require a year or more from the time a decision is made to employ a group of sales people before any real sales results are secured.

Lost Revenues

Revenues that are lost because of any let-up in sales pressure cannot be recovered at will, but are likely to be lost for years—some permanently. Here are a few examples:

If an industrial plant or plant addition that might have been obtained for a certain territory goes elsewhere, that business, as well as the residential and commercial revenues that would have resulted from it, is permanently lost.

Engine competition is extremely active in some parts of the country. In too many recent cases, this competition has obtained the business.

If customers purchase competing equipment instead of electric, revenue is lost for a long time. The revenue during the fifteen year normal life of only 1,000 water heaters will average about $500,000; of only 1,000 ranges, about $300,000.

If a poor fluorescent lighting job is *bought* by the customer to replace filament lighting rather than the good job that might have been *sold*, business remains lost for years because fluorescent lighting equipment is expensive and, therefore, not quickly replaced.

If the foregoing discussion is not thought to be applicable to some utility where the capacity situation is really tight, then let it be remembered that a substantial portion of "sales promotion" is actually not direct selling

and it is not related to a temporary capacity problem. It is vitally involved, however, in the problem of increased, extra-profitable revenues that are needed in order to meet the costs of greatly expanded utility plants.

These activities include answering customers' questions as to uses for electric service; providing layouts for lighting, cooking and wiring; and helping to promote the development of infant utilization programs that cannot provide much demand immediately, such as those for all-electric kitchens and laundries, the electric blanket, home freezers, television and the heat pump. Other activities are handling rate applications; obtaining market data; education of both salesmen and customers on the newer commercial and industrial applications of electricity; and maintaining necessary records. All of these things contribute to the utility's good relations with its customers and with the electrical industry; and help build the utility's territory and hence the utility's future.

Where *temporarily*, there is a peak capacity storage, *in a relatively short time* system capacity will be increased substantially. Then added revenues will be needed urgently to make these large new investments pay for themselves. A primary way of making these investments pay is to load them up with high diversity business. The best way to do that is through continued, carefully directed sales pressure now.

It is needed even more if, during the next few years, business activity lessens appreciably. While present forecasts indicate a power stringency in some areas at some period in 1948, it is not necessarily an absolute certainty. A slight business recession could prevent it.

Selective Selling Valuable

So much, from solely the point of view of electric utilities, of the possibilities inherent in carefully planned and directed selling. It seems to be apparent that selective selling, intelligently adapted to each individual electric utility, is valuable, if not essential, under any conditions. When regarded from the viewpoint of the utilities' earning requirements over the near future, volume selling, carefully guided with an eye toward maximum sales of kilowatthours per kilowatt of capacity, less reserves, becomes a "must" for the entire electric utility industry.

As has been stated already, however, others than utilities are affected by the national sales of electricity. Each of the parts of the entire electrical industry depends upon all of the others.

A little over a year ago, in Atlantic City, this matter of interdependence was stressed at the annual meeting of the National Electrical Wholesalers Association. Barely more than two months ago, it was emphasized by a representative of the National Electrical Manufacturers Association to a large group of utility people who were gathered in Chicago. Today, as a utility representative, I want to acknowledge this interdependence as an important factor that must be in the forefront of utility thinking as it masters the problems of capacity, financing of plant extensions, and selling which immediately confront it.

It has been said before that, in the last analysis, stability and value of employment, reasonable security for employees, and satisfactory financial results for employers in all branches of the electric industry depend upon maintaining and increasing the volume of sales of electricity. Several million families and, of course, more millions of people in this country are directly dependent for their well-being upon the continued large-scale production of devices used for the manufacture, transmission, distribution and utilization of electricity in different fields.

Workers in the little factory that turns out outlet boxes or something else equally small but important; employees in a larger plant that manufactures water heaters, or irons, or electric razors, or any of a hundred other electricity consuming devices; those employed by the largest manufacturers who devise, design and make giant turbines, transformers of all sizes, cable and the multitude of other required equipment; electrical contractors, distributors, retailers, and their employees, together with those of us who are employed by the utilities; all have a big stake in how much electricity is sold during the years immediately ahead and the intelligence of the manner in which that selling occurs.

Our responsibilities in our own interests are heavy. Those which we have to the industry of which we are a part are heavier. Last but by no means least, we cannot escape the responsibility we have to the economy of the whole country in doing our utmost to maintain its continued well-being. The successful discharge of these responsibilities will be determined importantly, by adequate development of both the quantity and quality of utility sales effort.

Selling selectively by electric utilities *now* with full executive encouragement and support will be a most important factor in producing maximum future benefits for them, for the electrical industry, and for the country as a whole.

The Importance of Keeping the Power Industry Financially Sound

(*Continued from page* 180)

imum of criticism about decisions that have been rendered.

Investors cannot be expected to invest in securities of a utility when its rate of return is so low as to raise doubts in the minds of the investors as to the wisdom of such investments. If such a utility is able to secure money it will not be able to do so on as favorable terms as will the utility that is and has been receiving a fair return on its property for a number of years.

I am fully aware of the problems with which you, the investors in your securities, and we who regulate the issuance thereof, are faced during this time of enormous expansion. I am deeply aware of the necessity of maintaining the financial integrity of the power industry.

No attempt has been made here to advise you as to any definite method of financing which may be a solution of the problem. I have, however, endeavored to point out the importance of cooperation between representatives of the power industry, the public, and regulatory authorities throughout the country. We have excellent cooperation in Virginia, and I assume that this is not a unique situation.

The problems with which we are confronted today can and will be successfully resolved if we all cooperate wholeheartedly.

Sound Rate Design In Tomorrow's Economy

By E. N. Strait

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An Address before the Sixteenth Annual Convention of the Edison Electric Institute, Atlantic City, N. J., June 3, 1948

THE electric utility industry, like every other enterprise engaged in private industry or commerce, has always found that the question of price for what it has to sell is one of the most important problems with which the enterprise must deal. This is true, whether the price problem is simple or complex, since upon the suitability of the price, depends the financial soundness and, hence, the stability and usefulness of the undertaking.

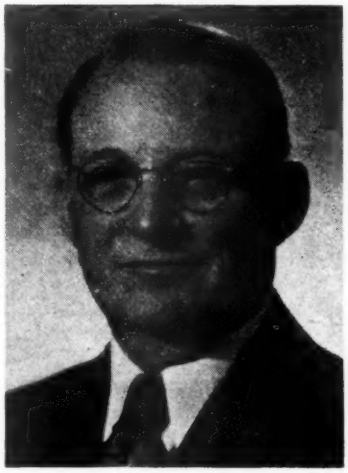
Let us, now, examine what has happened to raise the electric industry's interest in rates to its present unusual height.

Effects of Growth and Regulation

Hardly more than sixty-five years have passed since electric utility service was first supplied to the public. In that period, the privately owned electric utility business has grown from practically nothing to one having, approximately, a value of plant and equipment of $15,000,000,000, annual gross revenues of $3,500,000,000, installed generating capacity of 42,000,000 kw, and 34,000,000 customers.

This large and rapid growth was not attained without numerous and extensive changes in the application and utilization of electric service and in the structural plants and the operating organizations that have been developed to supply it. These changes in conditions of utilization and supply have naturally been accompanied by a great increase in the industry's problems relating to rates for service.

The problems of rate-making have been affected not only by factors of growth of the industry; they have been influenced also by development of regulatory laws and by pronounced changes in economic conditions and technological development.



MR. STRAIT

It was during the early 1900's, barely forty years ago, that state regulatory laws, applicable to public utility rates, began to be extensively enacted. Regulation has extended, therefore, over approximately two-thirds of the history of the electric utility industry. Since the beginning of the industry, the rates of electric utility companies, with few exceptions, have constantly been lowered, due to increasing efficiency, arising, in most part, from improvement in the art of production and supply and from expansion of the volume of sales. For example, in 1885, the average rate for residential service was 24.5 cents per kilowatthour; in 1900, 17.0 cents; in 1920, 7.45 cents; in 1940, 3.84 cents, and in 1947, 3.09 cents.

In general, the principal problems in the matter of rates, from the inception of regulation, arose from a) eliminating their inequalities which developed during the earlier, formative years of the industry, b) adapting rates to the increasing complexity of the industry economics, c) meeting revenue requirements, and d) dealing with the pressures of private and public special-interest groups. However, the difficulties of the rate problems of that period were lessened by the beneficial effect of almost constantly decreasing cost of service.

Effects of War and Postwar Conditions

Now, we have entered—make no mistake about it—a very different economic climate from any that has ever before affected the electric utility industry. The nation is suffering, and for years to come will continue to bear, the adverse economic results of the greatest, most costly war of all times. A stupendous war debt burdens the nation with its taxes, with little prospect of anything better than its slow extinguishment. Pent-up and unsatisfied demands for capital and consumer goods have swollen enormously the need of producing and marketing such goods, thereby greatly promoting the rise of wages and prices. Shortages of food, clothing and machinery abroad still place heavy demands on this nation's production, affecting its internal economy and further taxing the resources of its people.

At home, unsettled labor conditions cause loss of production and wages, and increases in costs. Abroad, continued disturbances in international relations are causing a new flood of national expenditure for foreign assistance, on the one hand, and for military purposes, on the other. Practically all types of business have been greatly affected by these conditions—the utility industries in a way different from most others, due to the various controls placed upon them during the war and to the lag of regulatory action on required rate increases which began to develop rapidly as a result of

economic changes since the close of the war.

Restrictions during the war, on the construction of new electric generating capacity and other facilities, because of shortages of materials and labor, forced the industry and its customers to get along with a drastic decrease in the reserve capacity normally required. This situation extended into the postwar period and still persists. The limitations on the electric generating capacity and the need of fullest possible industrial production, during the war, lengthened the hours of industrial labor and, in many cases, increased the number of daily operating shifts of industrial plants. These more or less temporary operating conditions raised above normal, for the time being, the utilization factor of electric facilities and, thus, tended to enhance the earning power of the electric utility systems; but such potential improvement in earnings was drawn off by the excess profits tax.

Restrictions on production of civilian requirements during the war also held back a flood of demand for civilian goods and services, built up by high take-home wages and wartime savings of the people, so that, following the removal of various governmental controls, demands for central station service for industry, commerce and homes, created load requirements on electrical systems even beyond those experienced in wartime.

Problems of Expansion

This entire situation plunged the electric utility industry into the necessity of obtaining, as quickly as possible after the war limitations had been removed, the equipment needed to restore the industry's normal reserve capacity plus the capacity essential to meet the needs of the rapidly growing demands of consumer requirements. This must be accomplished at construction costs far exceeding anything known before, with consequent marked increases in both the cost per unit of electric capacity and the fixed charges per unit of electric service.

At the very same time, in this postwar period, electric utility companies find it necessary to absorb in operating expenses large increases in wage rates and in prices of materials and services, which previously had been held rather stable during the war. True it is that the removal of the excess profits tax in 1946 held out the prospect of some alleviation of the situation, but the benefit to earnings soon vanished, in many instances, as a result of numerous reductions of rates which were made before the severity of the price and wage situation was sufficiently comprehended to halt these reductions. These circumstances fast changed a fairly favorable earnings situation into one which, without attention, might develop unfavorably.

Needed Revenue Increases

All this, the electric utility people have seen happen. From your observation of the problems of keeping pace with the increasing requirements for additional equipment, the present need for large amounts of new capital, and the necessity of adequate revenues to support these needs, you must realize that the industry is no longer in the comparatively easy stream of the prewar period but now is in a powerful, swiftly moving current of economic events which challenge ingenuity. At the rate at which the industry is being carried along by these events, it is safe to say that more problems of importance with respect to electric rates will arise in the next five years than have been dealt with during half the past period of regulation. This, therefore, is a period for quick decisions.

During the long and constant decline in the level of electric rates, through the process of favorable economic development of the electric utility industry, rate reductions came to be taken largely as a matter of course. Appearances, therefore, may have given the impression that the chief purpose of regulatory commissions was to reduce, or merely to adjust, rates. Little thought was given, or was often needed, in relation to increasing them. However, commissions have two basic obligations to perform. One is to see that rates are fairly and reasonably dealt with in the interests of both customer and company; the other, to insure adequate service which requires that the utility company must be enabled to raise sufficient capital to provide it.

There are many indications that regulatory commissions understand the present financial needs of the public utility companies and, in general, have a sympathetic attitude toward what is necessary to enable the companies to meet their capital requirements. The foremost necessity is adequate revenues. Since the inflationary wage and price situation set in, many increases in rates have been allowed by the commissions to improve the earnings position of the utilities.

To enable regulatory commissions to reach proper conclusions in relation to the revenue needs, utility companies themselves should adequately present to the commissions comprehensive showings of their present and future requirements. Satisfactory understanding and approval on the part of the public may also require public presentation of such information. The fact that the electric utilities long have had a record for a downward trend of rates is no reason why they should now stand back when increases may be needed, while others, affected no worse by inflationary conditions, have maintained their former position in the economic scale by obtaining increases in their wages, prices, and rates. In a period of spiraling inflation, one can maintain his proper economic position only by keeping his own income relatively abreast that of others.

Dividend Purchasing Power

In considering the question of necessary revenue increases, management must consider not only the reduction which has occurred, or may develop, in the company's earning power under its present rates, brought about by the increased cost of its plant, operating expenses and interest rates, but also the decrease in purchasing power of any earnings it may have available for dividends and surplus.

Considering common stockholders of electric companies as people, let us examine their earnings, as labor does its wages, on the basis of the change in the index of the cost of living, which stood at 161.0 in 1947, compared with a base of 100 for the period of 1935-1939, inclusive. On this basis, we find, for Class A and B electric utilities that in 1947 the over-all net income of approximately 9.0 per cent of net worth was really equivalent to only 5.6 per cent, when adjusted to the index of the cost of living; and that the dividends amounting to 6.6 per cent of net worth, which the stockholders received after retaining the remainder in the business, was equivalent to only 4.1 per cent.

Even these figures may be further reduced under the present level of

rates, for reasons already explained. It is up to management not only to find means of raising additional borrowed capital at reasonable going rates of interest but also to seek to do something to improve the take-home wages of the invested capital of its stockholders. This requires that the management seek, and the regulatory authority allow, rates which will result in revenues sufficient, in the aggregate, to yield reasonable returns measured by present economic relationships.

Now, more than ever before, the common interests of customer, employee and investor, in the rate problem, is evident. The customer is concerned that the company shall be able to provide the necessary facilities and pay labor enough to assure the customer of good and continuous service. To be assured of a secure job, adequately paid, the employee wants the company's earnings to be sufficient to pay a fair wage to himself and to raise enough capital to make possible sufficient service to the customer, thus keeping the business on a going basis. The investor wants enough earnings to meet the service requirements of the customer and reasonable wages for the employee and, in the face of increased living costs, to receive for himself, a fair wage from his invested capital. The time has arrived when employees are interested in rate increases and customers in wage increases. Satisfaction of the reasonable revenue needs of the investor will satisfy the requirements of all.

It is the purpose of this discussion not to attempt to solve the financial problems of the industry but to point out that the impact of the financial situation on the rate problem requires attention and then to consider what are the desirable characteristics of sound rate design which is certain to be essential in the days and years that lie ahead. In this brief discussion, consideration cannot be given to rate design for specific purposes; but, if we can reach some conclusions regarding what are the desirable, basic characteristics, we may apply them, appropriately, to the problems we shall encounter.

Principles of Sound Rate Design

Sound rate design involves legal, economic and commercial principles. For an understanding of the legal principles, we should, of course, look to laws on regulation; for the economic, to studies of finance and costs; and for the commercial, to examinations of methods required for satisfactory marketing and customer relations. When all these have been considered, it will be observed that proper rate-making involves an adequate understanding of very nearly every phase of utility operations. The directing of rate-making must, therefore, be the responsibility of the utility company's general management.

The active work of rate-making should be assigned to individuals having adequate technical and economic education and training, broad understanding of the physical, economic and managerial problems of public utility operations, good judgment, and positions in the company's organization close to the management. They should have reasonable opportunity for research and to expand their experience and knowledge, important to their field of work, by contacts both within the company itself and in the industry at large.

Legal Principles

While we cannot consider all regulatory provisions that have a bearing on rates, brief reference to certain parts, which appear in many of the public utility acts, will give us a conception of the legal requirements with which we are concerned in rate design. For example, the Wisconsin Public Utilities Act (Chapter 196, Wisconsin Statutes) provides as follows:

"Commission's Powers . . .
The commission shall provide for a comprehensive classification of service for each public utility, and such classification may take into account the quantity used, the time when used, the purpose for which used, and any other reasonable consideration. Each public utility is required to conform its schedules of rates, tolls and charges to such classification." Sec. 196.02(2)

"Rates to be Reasonable
The charge made by any public utility for any heat, light, water or power produced, transmitted, delivered or furnished or for any telephone message conveyed or for any service rendered or to be rendered in connection therewith shall be reasonable and just, and every unjust or unreasonable charge for such service is prohibited and declared unlawful." Sec. 196.03(1)

"Discrimination Forbidden
It shall be unlawful for any public utility to charge, demand, collect or receive a greater or less compensation for any service performed by it within the state, or for any service in connection therewith, than is specified in such schedules, including schedules of joint rates, as may at the time be in force, or to demand, collect or receive any rate, toll or charge not specified in such schedule." Sec. 196.22

In these examples of provisions of regulatory law, an important thing to observe is that rates must be just, reasonable and non-discriminatory, and that, in determining just and reasonable rates the commission and, consequently, the public utility, with the commission's approval, may take into account the quantity, the time and the purpose of the use of service, and any other reasonable consideration. The last, in particular, leaves a wide, undefined, but useful, field of rate-making open to reasonable discretion, subject only to review upon appeal.

A second important observation is that certain features of rate design, which the laws specifically approve, are not only in general and practical use today but, in some particulars, antedate general regulation of public utility rates. The guiding rules for rate design, laid down by early authors of regulatory laws, grew out of study and experience and provide a sound legal framework on which cost of service, value of service, social considerations, and marketing requirements can all be harmonized.

Economic Principles

Sound rate design must be predicated on sound economic principles. First of all, rates must produce revenues that are adequate to meet the costs of operation, depreciation and taxes, and any other operating expenses chargeable to current income, and leave enough in excess of that to yield a fair return on the investment in business. Out of such remainder for fair return, the utility must pay its fixed charges on borrowed capital and have enough remaining for dividends and surplus to attract new equity investment into the enterprise. Unless rates are high enough to yield sufficient revenues, the business becomes weak and unstable and other desirable characteristics of the rates become less attainable.

Sound rate design must also result in rates for various classes of service, which are reasonably in accord with the cost of service, to the end that each class shall fairly meet its share of costs and not be a burden on other classes of customers. This means that rates must be so designed that the revenue collected from individual cus-

tomers and classes shall vary in reasonable relation to changes in load and energy consumption. Otherwise charges may, at times, be quite inadequate and, at others, unreasonably excessive.

Continued distinction in rates, based upon classification according to use, may be looked for in the future but, probably, with diminishing differentiation particularly between commercial lighting and general power, and possibly between certain other classes, and with more prevalent use of general service rates. Convenience, conformity of rates with load characteristics, and revenue requirements will continue to dictate the desirability of some such distinction in rates, but desire for simplicity and for reduction of certain types of expenses will tend to promote the combining of classes of service when practicable.

We may also look for closer and more general conformity of rates to factors of cost, with due regard to competitive conditions created by availability of substitute services. This will probably involve more extensive adoption of forms of demand charges, or equivalent rate provisions, for the larger loads (whether industrial, commercial or residential) that will make sure that those fixed costs, which vary with the customer's demands, will be equitably imposed accordingly.

Perhaps we are emerging into a new industrial age—a more scientific one in which electricity will play even a greater role. Such development would be characterized by many new uses of electricity. The heat pump is, currently, an example. That it will offer a great new market for electricity is predicted.

Future Rate-Making

Whenever a situation like this occurs, there is often temptation, in the interest of promoting the development of the new application of electric energy as rapidly as possible, to minimize the cost of service and to place the rates for the new type of utilization on a low additional cost basis, possibly not suited to the load characteristics of the new type of load. It is a firm principle that increment revenue must exceed increment cost by a sufficient difference to build up the business and produce a driving incentive to further progress.

Rate-making of the future should be done on the basis of adequate understanding of the utility company's own costs and of the load characteristics of the service for which the rates are designed. In the case of new types of loads, such as the heat pump, rate-making should endeavor to make standard schedules, or suitable modifications of them, fit the rate requirements. If this cannot be done, the desirability of obtaining the prospective business under any different terms should be considered most carefully from the point of view of adequacy of revenues and effect on other classes of customers, before adopting special terms for it.

Rates should also be designed to promote adequately the use and sale of electric service. This requires that, under some conditions, the probable cost to the customer of substitute service must be considered. In the case of some types of utilization, the sale of electricity depends, not on any actual need or measurable economic value to the customer, but upon the convenience and the appeal of the service furnished. The sale, therefore, often depends on competition for the customer's dollar, as between the customer's ideas concerning the convenience and comfort of electricity and the desirability of other outlets for his means.

Central Station Industrial Service

As for the competitive position of central station service for industrial purposes, the future will probably show an increase in the relative value of service from central stations for power purposes, compared with the costs and problems of isolated plant operation. This will be the result of desire of industrialists to escape the difficulties created by fuel, labor and tax problems, involved in operating their own electric plants, as well as to realize plant economies. Demands for standby and auxiliary service from central stations will undoubtedly be greater in the future for the same reasons. There will be more general use of standby and auxiliary service rates designed to merge into the standard rates, in order to promote and aid possible transfer of the customer's convertible requirements from partial to complete central station service.

A feature of rate-making that is closely identified with its economic side is the use of automatic rate-adjustment provisions and profit sharing and sliding-scale rate plans.

A considerable number of states provide, in their public utility laws, an opportunity for the use of profit sharing and sliding-scale rate plans. Not very many have thus far been adopted, although for years there have been a few notable examples. Personally, I do not look for any material extension of the profit sharing plan between the companies and their employees in the near future, while the present unsettled wage situation continues. Likewise, I do not foresee any considerable increase soon in the use of sliding-scale rate plans. Primary attention, probably, will be focused, for the present, on changes in the basic rates.

The case of automatic rate adjustment provisions, particularly fuel clauses, is a different matter. Fuel clauses, in general, have long proven their equity and usefulness in automatically adjusting charges for service according to variations in cost of fuel, either on a basis of actual cost to the company or of competitive fuel cost to the customer. The use of fuel clauses has been widely prevalent. They have been a valuable aid to many utility companies since the war. Various companies have recently taken measures to adopt fuel clauses, where they did not exist before, or to extend them to a broader coverage of service, even including residential service in a number of instances. I look for continued increase in the use of fuel clauses.

Commercial Principles

It is impossible to separate entirely the commercial and economic aspects of rate-making. They have much in common. Both have already been discussed without separate distinction. Without examining further the relation of desirable rate characteristics to the broad field of commercial activity, we should stop to note one characteristic of good rate design, so important from its commercial viewpoint. That is simplicity of rates. There may sometimes be a tendency to make rate schedules that will fit almost every variation in the cost of any service to which the schedules are likely to apply and an opposite tendency, at times, to make schedules that are, in large measure, merely averages of what the class costs are supposed to be. The first way, which tends to be just and reasonable and likewise promotional, is likely, when carried to the extreme, to be also bothersome to un-

(*Continued on page* 228)

PERSONALS

EDWARD O. BOSHELL has been elected president and director of Philadelphia Company of Pittsburgh, Pa. Philadelphia Company is the parent company of Duquesne Light Company and Equitable Gas Company.

Mr. Boshell was born in Melvin, Illinois, and after graduation from Culver Military Academy he entered the University of Illinois, completing a course in business administration in the College of Commerce. Following his graduation in 1923, he entered the University College of Law, and was graduated in 1926.

Mr. Boshell then joined the law firm of Knapp & Campbell of Chicago, who represented railroads and public utilities. In 1933 he entered the employ of Stone & Webster Service Corp. in New York, later becoming general counsel for this firm, which has been engaged in the supervision of the development, operation, and finance of public utilities since 1889. In 1937 he was elected vice president in charge of financial matters for the companies supervised by Stone & Webster Service Corp., which consisted of approximately 70 utilities in the United States and foreign countries. On March 11, 1948, he was elected chairman of the board and president of Standard Gas and Electric Company.

ROBERT P. STACY has been elected vice president of The Connecticut Light and Power Company at a meeting of the company's Board of Directors in Hartford. Mr. Stacy was formerly executive assistant with the company in Hartford.

R. H. Knowlton, president of the C. L. & P. Co., has announced the appointment of SHERMAN R. KNAPP as assistant to the president. Mr. Knapp was formerly assistant to the vice president in charge of sales, with offices in Waterbury.

Mr. Stacy first came with The Connecticut Light and Power Company in 1927. Since that time he has been an engineer in the company's General Operating Department in Waterbury, manager of the Winsted Gas Company, assistant manager of the company's Meriden District, supervisor of customer relations at Hartford, manager of the Rockville-Willimantic Lighting Company, and, since 1939, executive assistant in Hartford.

Mr. Knapp attended Cornell University, joined the company in 1928 as a cadet engineer in Waterbury and in 1930 was successively office engineer and assistant engineer in the General Operating Department in Waterbury. From 1939 until 1947, Mr. Knapp was assistant to the industrial power engineer in Hartford. He was named New Milford district manager in 1937 and held that position until 1941 when he was reassigned to Waterbury as assistant to the vice president in charge of sales.

Election of B. A. MCTEIGUE and C. H. SEIPP as vice presidents of Minnesota Power and Light Company has been announced by M. L. Hibbard, president and general manager of the company.

Mr. McTeigue has occupied various auditing positions with the company and its predecessors since 1922. In 1936 he was named assistant treasurer and in 1946 secretary and treasurer of the company.

Mr. Seipp has been associated with the company and its predecessors since 1923 in various accounting positions and in 1946 became the company's chief accounting officer when the position of comptroller was created.

Three new vice presidents were named at the recent annual meeting of the Union Electric Company, St. Louis. They are DUDLEY SANFORD, M. E. SKINNER and A. H. SCHETTLER.

Mr. Sanford, whose previous title was executive assistant, was made vice president in charge of the electric operations of the company and of Union Colliery Co. and St. Louis and Belleville Electric Railway.

Mr. Skinner, who has been director of sales, is now vice president and will continue in charge of commercial operations. Mr. Schettler, formerly comptroller, has been named vice president and comptroller.

Mr. Sanford was connected with Utah Power and Light Co. for four years before joining the Union Electric organization in 1919 as industrial engineer in the sales department. From 1923 to 1944 he was treasurer of the St. Louis County Gas Co. and assistant treasurer of Union Electric. In 1944, he was made executive assistant of the company and its subsidiaries, engaging primarily in matters pertaining to the operation of the system.

Since 1922, Mr. Skinner has served successively as commercial manager of the Duquesne Light Co. of Pittsburgh, vice president and commercial manager of the New York Power & Light Corp., assistant vice president of Niagara Hudson Power Corp. For ten years, before joining Union Electric in 1946, he was vice president in charge of sales for the Buffalo Niagara & Eastern Power Corp. and its subsidiary operating utilities, serving Buffalo and the surrounding territory.

Mr. Schettler spent 16 years with Price Waterhouse & Co. before he became identified with Union Electric in 1940 as comptroller. He is a member of the American Institute of Accountants.

EDWIN S. BUNDY, a director, vice president and chief engineer of the Buffalo Niagara Electric Corp., Buffalo, has been elected vice president and chief engineer of the Niagara Hudson Power Corp., Syracuse.

Mr. Bundy has been identified with the Buffalo utility and associated companies for 36 years. Starting as a draftsman a few months after his graduation from Cornell University, he was made superintendent of the Pulaski district of the company in 1915 and from 1921 to 1923 was division superintendent. In 1929 he was appointed chief electrical engineer for the western division companies of the Niagara Hudson System. He has been a vice president and chief engineer of the Buffalo Niagara Electric Corp. since 1944.

HAROLD QUINTON, vice president of the Southern California Edison Co., Los Angeles, since 1942, has been elected executive vice president. The office had been unfilled since W. C. Mullendore became president of the company in 1945.

BRUCE RENWICK, formerly assistant general counsel, has been elected general counsel and assistant secretary. He succeeds GAIL C. LARKIN,

general counsel since 1942, and a vice president since 1945. Mr. Larkin, will continue as counsel for the company with the title of senior counsel.

Before his association with the Edison company, Mr. Quinton was Los Angeles resident partner of Arthur Andersen and Company, and had been a member of that firm since 1926, going to Los Angeles in 1928 from the Chicago offices. Previous to his association with Arthur Andersen and Company, Mr. Quinton for four years had been with the U. S. Treasury Department in Washington, D. C.

ROBERT E. PIERCE has been appointed consulting electrical engineer for Ebasco Services Inc., as successor to ARTHUR E. SILVER, who continues with the company in the capacity of associate consultant.

Mr. Pierce brings to his new position an extensive background of experience in the electrical industry. He started, during summer months in 1916 and 1917, with the Indianapolis Light & Heat Company. The year following graduation from Purdue University, in 1918, he entered the operating department of the Utah Power & Light Co., later becoming electrical engineer for the company.

In 1927 he transferred to the engineering department of Electric Bond & Share Co., now Ebasco Services Inc., as electrical engineer.

Mr. Silver retired from active service after the completion of 44 years with the Ebasco organization and its associates.

His initiation into the utility business took place in Raleigh, N. C., in 1904 as electrical superintendent and later chief engineer for what is now the Carolina Power & Light Co. This system, one of the first in the Electric Bond & Share group, has been the proving ground since that date for many of Mr. Silver's pioneering achievements.

In 1910 he transferred to the New York office as electrical engineer for Bond & Share; also, for a short time, sponsor engineer for operations east of the Mississippi. Throughout the 25 years that followed he was in charge of the planning and design of power plants, transmission lines, substations and distribution systems required to supply the almost virgin territory being served by the associated companies.

The Electric Industry in 1948—The President's Address

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our income tax laws. We find ourselves subjected, as other industries are, to discriminatory, preferential taxation. There is a lack of understanding, as an industry, of our accomplishments in the postwar period and of our plans for the future. We find ourselves, in common with other businesses, but in the forefront, subjected to a drive for the socialization of industry. There is too little understanding of the operation of the capitalistic system, particularly the benefits derived therefrom by the individual.

We are badly in need of a broad public information program at the grass roots and on a national level. It has been too long delayed. We have an excellent, even inspiring story to tell. Economic facts are on our side. We must demonstrate that electric service by private business is superior and best for the nation. We must join with others to strengthen the opposition to socialism and communism. We must tell and retell the fact that business-managed utilities are a vital part of private business and should not be socialized. We cannot hope that the public, busy with its own affairs, will understand our position unless we tell it to them. We must tell our story to every segment of the social and political structure of this nation and do it over and over again. This is the way to make friends for the industry.

Good service; abundant power; low rates; improved public relations; cooperation with regulatory bodies; security for employees and investors; improved efficiency; engineering advances—all these we expect to give in full measure.

But we must do more than that in these difficult days. We must work with others to sell and resell our capitalistic system and prevent the spread of socialism. We must stand fast to our principles and beliefs as free people.

We can, we must, meet the challenge of these times. We will if we as an industry think straight, act wisely and talk effectively.

A Look At Your Earnings

(*Continued from page* 185)

ume covered up trends which should now cause concern. The industry should have done better during a period of such high utilization of plant.

Now the industry requires a substantial amount of outside capital, perhaps $3 or $4 billion for a five-year period 1947-1951. To attract this additional investment on favorable terms, to support the increased overhead and capital charges, and to maintain a favorable credit position, operating income for the industry as a whole will have to increase. Plant additions financed not from retained earnings but from the sale of securities must show a rate of return sufficient to attract further capital in competition with the requirements of other industries.

An addition to net plant increases the base for rate making purposes, but such addition does not of itself provide increased operating income. Actual increases in operating income have to come from one or more of the following circumstances:

1. actual rate increases or (as may be the case at present) an end to periodic rate decreases, accompanied by continued growth in electric sales;
2. savings in operating costs arising from the replacement of less efficient generating facilities;
3. further increase in electric sales making for a high use factor of the added capacity;
4. a decline in the present high level of fuel and labor costs;
5. a decline in taxes.

The earnings record of the industry over the past twenty years is a tribute to its engineering, its management, to its success in developing growth by increasing its efficiency and reducing rates. Paradoxically, the decline in the margin of profit is in a very real sense a source of strength and a cause of progress, as long as the effects of rising costs and declining margins can be absorbed in growth.

Fortunately, the growth is not ceasing nor need we feel apprehensive that it will cease. Nothing is likely to stop it. However, it may slow down or even stop temporarily. Conservative investors are attracted by the indus-

try's growth and stability. But they cannot feel entirely free of concern induced by declining margins. Should the industry ever approach a saturation point, a continuation of this long-term trend of margins would prove destructive. To maintain the attractiveness of utility securities for conservative investors, every effort should be made by the industry and by regulatory authorities to check the decline in the profit margin on sales.

Recent Markets for Electric Utility Securities and A Look to the Future

(*Continued from page* 190)

orderly market and a reasonable chance for everybody to finance at reasonable cost as he goes along. If, on the other hand, each fellow tries to beat the other to it, then you may produce a chaotic situation in which buyers will hold back for even greater concessions and a disordered market will result.

My greatest concern is in the ability of companies to market common stocks to keep the capitalization ratios in good balance. Of the enormous amounts of new capital raised in the first quarter of 1948, approximately two and one-half billion dollars, only about 10 per cent, represented the proceeds of common stock financing. Investors are still conscious of the large blocks of common stocks to come out of the enforced divestment of public utility holding company portfolios, as well as of the requirements of the operating companies themselves for new capital.

On new offerings of common stock, the yield has had to be, and will probably continue to have to be, exceedingly attractive. The spread between the yields on senior securities and those of common stocks are now probably much wider than they have been at most past periods. Indeed, at times the yields on common stocks have been lower than those on many fixed return securities, reflecting the hoped-for future growth factor.

The narrowness of the market for large issues of common stocks, over the recent past, can be well understood when you consider their relative unattractiveness to large investors by reason of the high surtax rates, the capital gains taxes and other factors. The recent revision of the tax law may go some little way to improve this situation, but to broaden and make more active the common stock market there should be some elimination of the double taxation, first paid by the corporation on earnings and then by the individual on his dividends. There should also be at least a modification of the capital gains tax so that the purchaser is not frozen in by the amount of the capital gains tax on successful investments without any substantial credit for losses. Certainly at present deflated prices, there is no good reason for a 75 per cent margin requirement. Of course we should not return to shoe-string speculation. But why an individual can borrow only 25 per cent on the most marketable asset in the world, listed securities, when on most other forms of wealth, not nearly so liquid, he can borow practically whatever the lender is willing to let him have has yet to be explained.

Leadership in Accident Prevention

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3. Require detailed reports weekly if possible, certainly monthly reports at the outside, stressing violation implications and make sure that violation trends are stopped before serious accidents ensue.
4. Require that every person face his responsibility fairly and squarely.
5. Sample the workings of the program occasionally by personal observation.
6. Make certain that your employees know the rules set up for their safety. Do not presume they know these facts for you are presuming with lives. This is especially important at this hour since in the industry generally, young men are being fed into the bottom of our organizations to be trained as electrical workers.
7. Don't skimp on expenditures looking to accident prevention.

This industry has always been a fighting one. At the start, we had to fight for our place in the sun, pioneer a new idea and a new standard of living. Fighting adverse forces and solving tough problems are nothing new to us.

The curve of lost time accidents is pointing upward. You and I have the responsibility in our particular company to get at the cause of this rise and correct it. Let's start with ourselves. Lives, injuries, suffering and economic loss will depend on how well we meet the challenge. I have not the slightest doubt that we will win this battle if we give it proper attention.

The Future—A Challenge

(*Continued from page* 216)

generation, transmission, and sale of electric energy, and it may at any time, thereafter, upon its own motion or upon application, make such modifications thereof as in its judgment will promote the public interest . . . "

The Securities and Exchange Commission has already approved permanently integrated groups covering several states or large portions of one state, as well as groups of contiguous properties.

Of course this is not the way we did it before 1935, with holding companies having national diversity. That is out completely at this time. Let's do our share in rearmament and possible war with the tools that are before us. Let's do it in time so that no one can say that we were not ready as an industry to take our share of the responsibility of rearmament or national defense. Let's do it before some assiduous advocates of collectivism get their kind of development still further into the territories and businesses in which we are already organized to serve, and in which we have invested our money, our time, our lives, and our skill; and in which the public looks to us to provide electric service to what extent may be necessary.

The courses of action suggested here are necessary if we are to survive and grow as we should. It is time to wake up the great, placid organization we have in the E.E.I. and put it to work aggressively so that the public

may know the facts about our business and about those who unfairly seek to tear it down. Let's find a way to handle our affairs so that our people and customers will not be dependent at any time upon Federal largess for their power supply in the areas we serve; and so that we ourselves, with private capital and private enterprise, properly regulated as we are in the public interest, can supply all the needs of war and of peace in our communities with maximum advantage to all.

Sound Rate Design in Tomorrow's Economy

(*Continued from page 224*)

derstand and apply. The other, though simple, is not likely, when carried to its extreme, to fit properly variations in cost of service or to be adequately promotional.

What we need, therefore, is a suitable balance in rate schedules, that will give proper coverage of costs and promotional adequacy, on the one hand, and simplicity on the other. This is not to imply that we do not already have a satisfactory condition, in this respect, in many places. The great growth in number of customers, average use of energy per customer, saturation of lines, et cetera, is making this desirable condition more and more attainable and it should be a constant objective of future rate design.

Definition of Sound Rate Design

It is often helpful to have our concepts of a proposition expressed in a concise way; so what has been said regarding the nature of sound design of rates in tomorrow's economy, may be summarized in the following simple definition having general application:

> *"Sound Rate Design" is that design of rates which yields a fair and adequate return to the investor at charges to the customer that are not discriminatory, that give reasonable effect to differences in costs, that do not exceed the value of service which customer and company interests indicate should be furnished, and that are as simple in form as economic requirements permit."*

In other words, rates should be adequate, non-discriminatory, variable with costs, promotional and reasonably simple.

In today's and tomorrow's economy, the dominant function of rates is, and will be, to raise revenues adequate to the needs of the industry. When this primary objective is achieved, the other desirable characteristics of sound rate design can be attained.

CONVENTIONS AND MEETINGS

1948

JUNE

1-3 EDISON ELECTRIC INSTITUTE, Annual Convention, Atlantic City, N. J.

9-11 Northwest Electric Light and Power Association, Personnel Section and Accident Prevention Conference, Medford, Ore.

10-11 Pennsylvania Electric Association, Prime Movers Committee, Hotel Casey, Scranton, Pa.

14-15 Arkansas Utilities Association, Arlington Hotel, Hot Springs. Ark.

16-18 Pacific Coast Electrical Association, Inc., Hotel Fairmont, San Francisco, Cal.

16-19 Canadian Electrical Association, Annual Convention, Manoir Richelieu, Murray Bay, Quebec, Can.

21-25 American Institute of Electrical Engineers, Summer General Meeting, Mexico City, Mexico.

SEPTEMBER

20-21 Iowa Utilities Association, Fort Des Moines Hotel, Des Moines, Iowa.

20-24 Illuminating Engineering Society, National Technical Conference, Hotel Statler, Boston, Mass.

OCTOBER

4-8 American Gas Association, Auditorium, Atlantic City, N. J.

11-12 Prime Movers Committee, EEI, William Penn Hotel, Pittsburgh, Pa.

11-12 Transmission and Distribution Committee, EEI, New Ocean House, Swampscott, Mass.

14-15 Electrical Equipment Committee, EEI, William Penn Hotel, Pittsburgh, Pa.

18-22 36th National Safety Congress, Chicago, Ill.

NOVEMBER

8-13 National Electrical Manufacturers Association, Hotel Traymore, Atlantic City, N. J.

28-Dec. 3 American Society of Mechanical Engineers, Hotels Pennsylvania and New Yorker, New York, N. Y.

30-Dec. 3 National Electrical Contractors Association, Roney Plaza, Miami Beach, Fla.

DECEMBER

5-8 The American Society of Refrigerating Engineers, Washington, D. C.

JANUARY—1949

Jan. 31-Feb. 4 American Institute of Electrical Engineers, Hotel Pennsylvania, New York, N. Y.

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Meter and Service, W. G. KNICKERBOCKER.....The Detroit Edison Co., Detroit, Mich.
Prime Movers, G. C. DANIELS.....The Commonwealth & Southern Corp., Jackson, Mich.
Transmission and Distribution, THOMAS J. BROSNAN.....Buffalo Niagara Electric Corp., Buffalo, N. Y.

GENERAL

Accident Prevention, E. J. KREH.....Duquesne Light Co., Pittsburgh, Pa.
Industrial Relations, C. B. BOULET.....Wisconsin Public Service Corp., Milwaukee, Wis.
Insurance, I. M. CARPENTER.....Ebasco Services Inc., New York, N. Y.
Membership, J. F. FOGARTY.....The North American Co., New York, N. Y.
Purchasing and Stores, R. S. KING.....Union Electric Company of Missouri, St. Louis, Mo.
Prize Awards, H. M. SAWYER.....American Gas & Electric Service Corp., New York, N. Y.
Rate Research, E. N. STRAIT.....Pioneer Service & Engineering Co., Chicago, Ill.
Statistical, WINSOR MARTIN.....Pioneer Service & Engineering Co., Chicago, Ill.
Transportation, JEAN Y. RAY.....Virginia Electric & Power Co., Richmond, Va.
Codes and Standards (a Subcommittee of the Board of Directors), H. B. BRYANS..Philadelphia Electric Co., Philadelphia, Pa.

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